ATTACHMENT 7

UNIT 1 AND UNIT 2 CLOSURE ACTIVITY SUMMARY

This is a summary of the activities performed at the University of Texas Southwestern Medical Center at Dallas during the closure of the container storage areas designated as Units 1 and 2 under the State Hazardous Waste Permit No. HW-50165-000. These units are also referred to as "Acid Storage Building – Front Room" and "Acid Storage Building – Back Room", respectively. Aerial photographs, showing the location of these units at the site, are provided in Appendix A of this report.

Notice of the intent to close these units identified in the hazardous waste report, was given to the TCEQ by letter dated 2/15/06. The TCEQ Regional Office was given verbal notice of the closure activities on 5/12/06. The regional notice was not 10-days prior to start of actual closure, but the TCEQ Regional Office Representative, Jim Kerlin, said that he would defer the required 10-day period in this case.

All chemicals and substances were removed from the two units prior to 5/1/06. These chemicals were either hauled off-site for disposal by an authorized transporter to an authorized site or placed in on-site hazardous waste management units registered on the Site's Notice of Registration (NOR).

On 5/1/06, Glenn G. Draper, P.E., a Registered Professional Engineer in the State of Texas, inspected the flooring of both Units 1 and 2 for cracks through which material may have escaped the units. No cracks were observed, as documented by the photographs provided in Appendix B of this Report. It should be noted that a refrigerator was still in Unit No. 2 at the time of the observations. Consequently, the area under the refrigerator was not inspected on 5/1/06. A follow-up inspection was made on 5/11/06, after the refrigerator was removed. No cracks were observed in the area where the refrigerator was located.

On 5/2/06, Eagle Environmental Services cleaned the walls and floor of the Acid Storage Building Front and Back Rooms (Units 1 and 2, respectively). The cleaning involved wiping down the walls and floors of the two units. The residual and rinsate from the wiping was collected, removed and taken to authorized disposal sites.

A sample of the last rinse was collected and submitted to TTI Environmental Laboratories in Arlington, Texas, for analysis. The analysis was limited to the chemicals specified in the Closure Plan. A copy of the lab results and sample chain-of-custody is provided in Appendix C of this report.

A review of the results found no substance present above detection level, except for Chromium. The Chromium concentration of 0.103 mg/l is below the contamination concentration (5.0 mg/l) for the rinsate to be considered hazardous waste.

The source of the Chromium is most likely the concrete slab, independent of the materials stored in Units 1 and 2. Typical concrete is known to have Chromium present in the material. The concrete would need to leach 5.0 mg/l or greater Chromium in order for the material to be considered hazardous material. The amount of Chromium that would need to be present in the concrete for it to be unacceptable for landfilling without any protection from groundwater is 10.0 mg/l based on the State Risk Reduction Standards, specifically 30 TAC 335.568. Since the level of Chromium found in significantly below these concentrations, the material is considered clean.

UNIT 003 CLOSURE ACTIVITY SUMMARY

This is a summary of the activities performed at the University of Texas Southwestern Medical Center at Dallas during the closure of the container storage area designated as Unit 003 under the State Hazardous Waste Permit No. HW-50165-000. This unit is also referred to as "S" Building. Aerial photographs, showing the location of this unit at the site, are provided in Appendix A of this report.

Notice of the intent to close these units identified in the hazardous waste report, was given to the TCEQ by letter dated 2/15/06. The TCEQ Regional Office was given verbal notice of the closure activities on 5/12/06. The regional notice was not 10-days prior to start of actual closure, but the TCEQ Regional Office Representative, Jim Kerlin, said that he would defer the required 10-day period in this case.

All chemicals and substances were removed from the unit prior to 5/1/06. These chemicals were either hauled off-site for disposal by an authorized transporter to an authorized site or placed in on-site hazardous waste management units registered on the Site's Notice of Registration (NOR).

On 4/21/06, UT Southwestern Medical Center Environmental Health & Safety staff cleaned Unit 003. The cleaning involved triple rinsing of equipment and apparatus used in the management of hazardous waste and triple rinsing the lab floor. The residual and rinsate from the wiping was collected, removed and taken to authorized disposal sites.

On 5/1/06, Glenn G. Draper, P.E., a Registered Professional Engineer in the State of Texas, inspected Unit 003 for the presence of residual and/or contamination from the management of hazardous waste. The equipment and floor appeared to be clean, with the exception of some floor tiles in front of the unit's fume hood.

Some floor tiles in front of the fume hood were discolored, apparently from liquid impacting the tiles. These tiles, per Mr. Draper's request, were removed. The removal was verified by UT Southwestern correspondence dated 6/5/06, which is provided in Appendix C.

Based on the unit being cleaned and potentially contaminated floor tiles having been removed, the unit is considered to be closed in accordance with the Permit's Closure Plan.

Facility neglected to notify TCEQ ten days prior to sampling.

ATTACHMENT 8

☒ EL DORADO ☐ DALLAS ☐ WILMINGTON ☐ HAMMOND ☐ MARTINEZ
☐ HOUSTON ☐ BATON ROUGE ☐ DOMINGUEZ

see 268.48 for codes

Teris

Waste Material Data Sheet

John Hansen cell 214-770-6485

1510648 pg 1

A. General Information

Contact Peter Harris
Customer Name University of Texas Southwest Med Ctr
Address 5323 Harry Hines BLVD
City Dallas
State Tx Zip 75390-9200
Phone # 214-648-2250 Fax #
USEPA ID # TXD054732822
E-Mail Address

SHIPPING FACILITY

Contact
Shipper Name
Address SAME
City
State Zip
Phone # Fax #
USEPA ID #
E-Mail Address
State Gen. ID No. 65014

B. Waste Description

Waste Name lab pack DROP INCIN
Source Code G 11 Form Code W 051
Is a representative sample provided? ☐ Yes ☒ No
Process Generating Waste NAICS #
Process Description: Off spec / out of date material

C. General Characteristics (at 70° F unless otherwise specified)

Color
Odor
☐ None ☐ Strong ☐ Mild

☐ Liquid % ☐ Solid % ☐ Sludge % ☐ Powder % ☐ Gas %

PHASES
☐ Single Layer ☐ Double Layer ☐ Multi-Layer

D. Waste Management Methods

☐ Most Appropriate Method
☒ Specific Facility Restriction: DROP INCIN

☐ Wastewater or ☐ Non-Wastewater as defined in 40 CFR 268.2 ☐ Universal Waste

Light Sensitivity ☐ Yes ☐ No Sorbent Added: ☐ Yes ☐ No Biodegradable? ☐ Yes ☐ No

E. Handling Instructions

If special handling techniques are required, such as spills, fire response, etc.:

F. RCRA Information

Is this a USEPA hazardous waste? ☐ Yes ☐ No Is this an acutely hazardous waste? (40 CFR 261.31 and 33) ☐ Yes ☐ No
List the USEPA hazardous waste codes, Specify the nature of any D003 waste in section H 1:

☐ Regulated Medical / Infectious waste
☐ Regulated Subpart CC Waste (VOC's ≥ 500 ppm by wt.)
☐ Spent Solvent
☒ CERCLA Regulated (Superfund) Waste
☒ Hazardous Debris (Subject to alternative LDR treatment standards)
☐ Exempt Waste (list reference in 40 CFR)

List any State Waste Codes or other state designations: D001 D003 H

G. Shipping Information

DOT PROPER SHIPPING DESCRIPTION
Technical N.O.S. descriptions ERG#
HAZ. CLASS UN or NA ID Number Packing Group RQ
☐ TRUCK ☐ RAIL

NON-BULK SHIPPING CONTAINERS

Size	Steel	Poly	Fiber	Qty/Units	Frequency
____ Gal	☐	☐	☐		
____ Gal	☐	☐	☐		
____ Gal	☐	☐	☐		
____ Gal	☐	☐	☐		
Other					

BULK SHIPPING CONTAINERS

Container Type		Quantity/Size	Frequency
☐ Yd. Box	☐ Super Sack		
☐ End Dump	☐ Roll Off		
☐ Tanker	☐ Vac. Trailer		
☐ Tote	☐ HEAT Tote		
☐ Rail	☐ Other		

Teris

ATTACHMENT E

☐ 283 ☐ 284
☐ 384 ☐ _____
☐ 284 L05
☐ 284 L06

LAB PACK - DRUM INVENTORY

Generator Name UT Southwest med ctr WMDS # 151064B

Generator EPA ID # TXD071378822 Drum # S-13

Date Accumulation Began 12/5/05 Container Type ☐Fiber ☒Poly ☐Metal ☐Other

Date Accumulation Closed 12/5/05 Container Size 5 gal

☐ (RQ) Waste Osium Tetroxide ☐ Appendix IV
DOT Proper Shipping Name ☐ Appendix V

Hazard Class 6.1 UN2471 I Weight _____ (drum & contents)
DOT ID # PG #

Special Handling	EPA Waste Code	Chemical(s)	Number of Containers	Container Size	Type	Physical State
	D001 P087	osium tetroxide	5X1ml		metal	L

I John Hans certify that the above inventory was packed 12/5/05 date.

G = Glass M = Metal P = Polyethylene F = Fiber ☐ Drop Chute Only
L = Liquid S = Solid A = Aerosol R = Residue (Sludge) ☐ Shredder Compatible

ATTACHMENT 9

PRODUCT DATA SHEET

Product Name: **Louisville**
Product Type: Dry Press High Duty Brick

DESCRIPTION

Louisville is a dry press, high duty fire brick meeting all the requirements of the ASTM standards for a high duty brick.

APPLICATION

A careful blending of quality raw materials, combined with closely supervised manufacturing assure a product of highest quality with reliable service in all applications where temperature of chemical attack is not beyond their range.

PHYSICAL PROPERTIES

PCE Value	30
Apparent Porosity	12 - 16
Bulk Density	128 138 lb/ft^3
Modulus of Rupture	800 -1400 psi
Cold Crush Strength	2500 - 3500 psi
Linear Reheat Change (2550° F)	-0.1 to -0.8%
Refractorieness Under Load (2460° F)	3.5 - 4.5%
Panel Spall Loss (2910° F)	4.0 - 8.0%

CHEMICAL PROPERTIES

SiO	56.21%
Al_2O_3	37.24%
Fe_2O_3	1.99%
TiO_2	2.40%
CaO	.17%
MgO	.48%
Alkalies	1.51%

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

•LOUISVILLE FIRE BRICK WORKS•

THORPE PRODUCTS COMPANY

Telephone

PHONE - (972) 785-9900
METRO - (972) 445-5230
FAX - (972) 785-9910

2200 Regency Pl. • Irving, Texas 75062

ATN: Eddie
972-785-9910

LOUISVILLE FIRE BRICK WORKS

Date Issued: 1/07/97
Date Revised: 10/01/97

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product Type:
Chemical Family: Inorganic oxides
Trade Name: Derby 3000
CAS: Mixture
General Use: A hi-temperature refractory mortar

Manufacturer/Supplier
LOUISVILLE FIRE BRICK WORKS
P.O. Box 9229
LOUISVILLE, KY 40209
Telephone: (502) 363-2656 (606) 286-4436
Fax: (502) 363-3331 (606) 286-6200

SECTION II - CHEMICAL COMPOSITION AND INGREDIENTS

INGREDIENTS:

Name	Percentage	C.A.S. Number	IARC/NTP/OSHA	Exposure Limits
Aluminosilicate primarily	40-70	1302-93-8	No	Nuisance Particulate OSHA PEL: TWA 15mg/m^3; respirable, 5mg/m^3 ACGIH TLV: TWA total dust 10mg/m^3
Sodium Silicate Solution	10-20	1344-09-8	No	None Established
Clay	7-13	1332-58-7	No	OSHA PEL: TWA for mineral dust containing SiO_2 respirable 10mg/m^3 divided by (% SiO_2 + 2)
Quartz (SiO^2)	1-3	14808-60-7	Yes	OSHA PEL: TWA respirable quartz 0.10mg/m^3
Silica, Fused	1-3	60676-86-0	No*	OSHA PEL: TWA respirable 0.10mg/m^3
Water	3-7	7732-18-5	No	None Established

Quartz, a polymorph of crystalline silica, is listed by IARC Monograph 68 as a Class 1 carcinogen. There is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources. ACGIH states this substance has been identified by other sources as a suspected or confirmed carcinogen.

SECTION III - HAZARDS IDENTIFICATION

H.M.I.S. DESIGNATION:

Health Hazard	2 - Moderate Hazard
Flammability Hazard	0 - Minimal Hazard
Reactivity Hazard	0 - Minimal Hazard
Personal Protection	E - Eye Protection & Gloves

Emergency Overview:
Not a fire or spill hazard. Some health risk by inhalation. Sodium Silicate component is an eye irritant. Avoid repeated or prolonged skin contact.

Medical conditions which may be aggravated by contact:
Mist/dust inhalation may aggravate existing chronic lung conditions such as, but not limited to, cancer, bronchitis, emphysema, and asthma.

LOUISVILLE FIRE BRICK WORKS

Date Issued: 1/07/97
Date Revised: 10/01/97

MATERIAL SAFETY DATA SHEET

Target organs:
Upper Respiratory System, Lungs

Primary Route (s) of entry:
Inhalation

Acute Effects: Inhalation of mist can contribute to upper respiratory irritation, including irritation of throat. Damp/ wet sodium silicate component in product is and eye irritant. Prolonged or repeated skin contact with the wet, alkaline mortar may contribute to the development of skin irritation.

Chronic Effects: Dust which may be generated from dried product or "after-service" tear-out contains free/crystalline silica. The prolonged inhalation (usually years) of mineral dusts containing free/crystalline silica may result in the development of a disabling pulmonary fibrosis known as silicosis; a progressive, incapacitating and sometimes fatal lung disease. IARC Monograph 68 has classified crystalline silica as a Class 1 carcinogen. NTP lists respirable crystalline silica amongst substances which may lead to lung disease including cancer and silicosis. See Section 16 for safe "Removal After Service Precautions".

The State Of California, pursuant to Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986, Has listed "silica, crystalline (airborne particles of respirable size)" asa material known to the State of California to Cause cancer.

Signs & Symptoms of Overexposure:

Eye Contact; Product is alkaline, a corrosive eye irritant which may contribute to the development of eye irritation/inflammation.

Skin Contact: Prolonged contact with bare skin may contribute to the development of moderate skin irritation.

Inhalation: Inhalation of airborne mist/particulate can irritate upper respiratory system as well as the throat.

Ingestion: An unlikely route of exposure. If ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms will include irritation and may include nausea, vomiting and abdominal pain.

SECTION IV - FIRST AID MEASURES

Eye Contact: Flush eyes, including under the eyelids, with large amounts of water. If irritation persists, seek medical attention.

Skin Contact: Wash affected areas with mild soap and water.

Inhalation; Remove the victim to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Ingestion is an unlikely route of exposure. If ingested in sufficient quantity and victim is conscious, give 1-2 glasses of water or milk. Never give anything by mouth to an unconscious person. Leave decision to induce vomiting to qualified medical personnel, since particles may be aspirated into the lungs. See immediate medical attention.

SECTION V - FIRE FIGHTING MEASURES

NFPA code: Flammability: 0, Health: 0, Reactivity: 0, Special: 0.

Flash Point: PRODUCT IS NOT COMBUSTIBLE.

Extinguishing media: Use extinguishing media appropriate to combustibles in area of fire

Firefighting instructions:: Firefighters should wear NIOSH-approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

SECTION VI - ACCIDENTAL RELEASE MEAURES

Spill Procedures: Carefully, cleanup and place material into a suitable container, being careful to avoid creating excessive dust form dried product. If conditions warrant, clean-up personnel should wear NIOSH approved respiratory protection, gloves, and goggles to prevent irritation from contact and/or inhalation.

SECTION VII - HANDLING AND STORAGE

Storage: Store product in pails in which it is packaged to prevent dry-out. Keep pails tightly closed when not in use

LOUISVILLE FIRE BRICK WORKS

Date Issued: 1/07/97
Date Revised: 10/01/97

MATERIAL SAFETY DATA SHEET

SECTION VIII - EXPOSURE CONTROLS & PERSONAL PROTECTION

Engineering Controls: Provide sufficient ventilation, in both volume and air flow patterns, to control dust concentrations below allowable exposure limits.

Personal Protective Equipment: The use of eye protection, gloves and long sleeve clothing is recommended.

Respiration Protection: For mist/dust concentrations above allowable limits provide workers with NIOSH/MSHA approved respirators in accordance with requirements of 29 CFR 1910-134

SECTION IX - PYHSICAL & CHEMICAL PROPERTIES

Appearance:	A wet, alkaline, slurry-like, light gray, mortar; ordorless. Packaged in 3 and 6 gallon pails (50 and 100 lbs.), red lids.		
Boiling Point:	212° F (water component)	***Specific Gravity (g/cc):***	Mixture
Melting Point:	> 2900° F (1590° C)	***Bulk Weight (lbs/gallon):***	20-21
Water Solubility:	Aqueous slurry	***% Volatile by Volume:***	0
pH (10% aqueous slurry):	11.5	***Evaporation Rate:***	Same as water

SECTION X - STABILITY & REACTIVITY

Hazardous Polymerization: Will not occur
Chemical Incompatibilities: None
Hazardous Decomposition Products: None

SECTION XI - TOXICOLOGICAL INFORMATION

Sodium Silicate CAS#6834-92-0: Toxic and Hazard Review (Sax): Poison by ingestion and intraperitoneal routes. A caustic material which is a severe eye, skin and mucous membrane irritant. Experimental reproductive effects. Ingestion causes gastrointestinal tract upset. skn-hmn 250mg/24H SEV; skn-rbt 250mg/24H SEV; skn-gpg 250mg/24H MOD; orl-rat TDLo: 15g/kg (14W male/14W pre-3W post)REP; scu-rat TDLo:9766 microgram/kg (1D male):REP; orl-rat LD_{50}:1280 mg/kg; orl-dog LDLo:250 mg/kg; orl-pig LDLo:250 mg/kg; ipr-gpg LDLo: 200 mg/K\kg

Quartz CAS# 14808-60-7: Toxic and Hazard Review (Sax_): Experimental poison by intratracheal and intravenous routes. An experimental carcinogen, tumorigen, and neoplastigen. Human systemic effects by inhalation: cough, dyspnea, liver effects. Listed by IARC Monograph 68 as a Class 1 carcinogen. Listed by NTF. No LD_{50} in RTECS. Inhalation human: TCLo 16 million particles per cubic centimeter per 8 hours per 17.9 Years-Interminent: Pulmonary system effects; Inhalation-human LcLo: 300 micrograms/m^3 per 10 years-intermittent: liver. Other species toxicity data (NIOSH RTECS): intravenous-rat LDLo: 90 mg/kg; intraperitoneal-rat LDLo: 200 mg/kg; intravenous-mouse LDLo: 40 mg/kg; intravenous-dog LDLo: 20 mg/kg

Balance of Ingredients: No Ld50 or LC50 found or oral, dermal, or inhalation routes of administration.

SECTION XII - ECOLOGICAL INFORMATION

Ecotoxicological/ Chemical Fate Information: No data available on any adverse effects of this material on the environment.

SECTION XIII - DISPOSAL INFORMATION

Waste Management/Disposal: This product, as manufactured, does not exhibit any characteristics of a hazardous waste. It is suitable for landfill disposal. However, debris generated during installation, maintenance or tear-out procedures may be contaminated with other hazardous materials. Therefore, appropriate waste analysis may be necessary to determine proper disposal. Waste characterization and disposal or treatment methods should be determined by a qualified environmental professional in accordance with applicable federal, state and local regulations.

Ernesto Santos
<Ernesto.Santos@UTSouthwestern.edu>
09/27/2006 04:13 PM

To Terry Capone <Terry.Capone@UTSouthwestern.edu>, Thomas Negusse <Thomas.Negusse@UTSouthwestern.edu>
cc David Robertson/R6/USEPA/US@EPA, Julien Farland <Julien.Farland@UTSouthwestern.edu>, Peter Harris <Peter.Harris@UTSouthwestern.edu>
bcc
Subject Re: Need Info on Refractory Brick

Attached is the MSDS for the fire bricks in boilers at the thermal energy plants.

>>> Thomas Negusse 09/27/06 1:53 PM >>>
We have copies of the MSDS Sheet for the refractory brick at STEP. Ernesto will send a copy to you. Thanks!

Thomas Negusse, P.E., MBA
Interim Director of Utilities
The University of Texas
Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, Texas 75390-9099
Office: 214-648-5428
Fax: 214-648-3999
Mobile: 214-334-1854
E-mail: thomas.negusse@utsouthwestern.edu

>>> Terry Capone 9/27/2006 11:27 AM >>>
THe EPA inspector has asked us to provide a Hazardous Waste Characterization on the refractory brick. We also need to provide a written description of where the brick goes once it leaves our campus.

I pulled two Material Safety Data Sheets (MSDSs) from your MSDS book yesterday and copied them for the EPA inspector, but neither of us is confident that either of these MSDSs match the bricks - - - i.e. nothing on either MSDS says "brick". This morning I went to the websites for the two companies referenced on the two MSDSs (USG Interiors and Fiberfrax), and now I'm even less confident that we have the correct MSDS for the bricks.

The information we need:

. A recent brick manifest showing the name of the contractor who takes the brick and showing the location of brick delivery.
. The name of the brick manufacturer. (The bricks say "Empires")
. A brick specification sheet.
. A brick MSDS.
. Information from the contractor: What do they do with these bricks?

Thanks.

Terry Capone, Environmental Compliance Manager
Environmental Health and Safety
University of Texas Southwestern Medical Center at Dallas
5323 Harry Hines Blvd.
Dallas, TX 75390-9053
Terry.Capone@UTSouthwestern.edu
(214) 648-9736
Fax (214) 648-3997

Fire Brick for boilers

Tech will check to see if this is correct MSDS

Boiler #3

Insulating

Materials

MATERIAL SAFETY DATA SHEET

USG INTERIORS, INC.
101 S. Wacker Drive
Chicago, IL 60606

DATE ISSUED: 11/16/88
Emergency Phone Day 312/606-3762
Night 312/606-4382

SECTION I

PRODUCT: INSBLOK-19, K-FAC-19, Fire Door Coreboard, Micore, and Spec Board
CHEMICAL FAMILY: Mineral fiber and Clay (Mixture)

SECTION II
INGREDIENTS

MATERIAL:	PEL	TLV:	CAS #
mineral fiber	15 mg/M³ (total)	10 mg/M³ (total)	None assigned
perlite	15 mg/M³ (total)	10 mg/M³ (total)	None assigned
starch	15 mg/M³ (total)	10 mg/M³ (total)	09005-25-8
cellulose	15 mg/M³ (total)	10 mg/M³ (total)	09005-34-6
silica sand*	0.1 mg/M³ *	0.1 mg/M³ *	14808-60-7

+ - trace quantity

* - respirable particles

SECTION III
PHYSICAL DATA

DENSITY: 16-20 pcf APPEARANCE AND ODOR: Tan-colored board, low odor

SECTION IV
FIRE AND EXPLOSION HAZARD DATA

SPECIAL FIRE FIGHTING PROCEDURES: None. Fire hazard Classification per ASTM E-84; Flame Spread 25, Smoke Developed 5.
UNUSUAL FIRE OR EXPLOSION HAZARDS: None known.

SECTION V
HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:
ACUTE: Dust from this product may cause transitory mechanical irritation to eyes and skin.
CHRONIC: If board is cut with a power saw, dust may contain respirable silica and mineral fiber. Long term overexposure to silica (alpha-quartz) causes silicosis.

Although inconclusive, three recent industry-supported research studies indicate that factory workers who were first employed in the manufacture of mineral wool or glass wool more than 30 years ago have a somewhat higher risk of lung cancer or other disease than the general public.

Whether the effects of smoking and exposure to mineral wool fiber are more than additive is unclear, but smoking by these workers was found to contribute to the higher incidence of lung cancer. Because of this it is recommended that people handling this material on a regular basis not smoke.

The product does not contain any toxic chemical(s) subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372).

ADDITIONAL ENVIRONMENTAL REGULATORY INFORMATION:

There may be specific regulations at the local, regional or state level that pertain to this material.

All components of this product are listed on the TSCA inventory. All components of this product are listed on the Canadian DSL Inventory.

This product contains the following substance(s) listed by the State of California on Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986:

- ceramic fibers (airborne particles of respirable size)

The following Canadian Workplace Hazardous Materials Information System (WHMIS) categori apply to this product:

Compressed Gas	-	Flammable/Combustible	-	Oxidizer	-	Acutely Toxic	-
Other Toxic Effects	X	BioHazardous	-	Corrosive	-	Dangerously Reactive	-

HANDLING/STORAGE:

The toxicologic data indicate that ceramic fiber should be handled with caution. The handling practices described in this MSDS must be strictly followed (see section on Personal Protection Information). In particular, when handling refractory ceramic fiber in any application, special caution should be taken to avoid unnecessary cutting and tearing of the material to minimize generation of airborne dust.

It is recommended that full body clothing should be worn to reduce the possibility of ski irritation. Washable or disposable clothing may be used. Do not take unwashed work clothing home. Work clothes should be washed separately from other clothing. Rinse washing machine thoroughly after use. If clothing is to be laundered by someone else, inform launderer of proper procedure. Work clothes and street clothes should be kept separate to prevent contamination.

Product which has been in service at elevated temperatures (greater than 1800 F) may undergo partial conversion to cristobalite, a form of crystalline silica. This reaction occurs at the furnace lining hot face. As a consequence, this material becomes more friable; special caution must be taken to minimize generation of airborne dust. The amount of cristobalite present will depend on the temperature and length in service.

IARC has recently reviewed the animal, human and other relevant experimental data on silica in order to critically evaluate and classify the cancer causing potential. Based on its review, IARC classified crystalline silica as a group 2A carcinogen (probable huma carcinogen).

The OSHA permissible exposure limit (PEL) for cristobalite is 0.05 mg/M3 (respirable dust). The ACGIH threshold limit value (TLV) for cristobalite is 0.05 mg/M3 (respirable dust) (ACGIH 1991-92). Use NIOSH or MSHA approved equipment when airborne exposure limit may be exceeded. Minimal acceptable respirators recommended for given airborne cristobalite concentrations are:

Concentration	Minimum Acceptable Respirator Type
Up to 5 fibers/cc or up to 10 times the OSHA PEL for cristobalite	Half face, air-purifying respirator equipped with high-efficiency particulate air (HEPA) filter cartridges (e.g. 3M 6000 series with 2040 filter or equivalent).
Up to 25 fibers/cc or 50 times the OSHA PEL for cristobalite (2.5 mg/m3)	Full face, air-purifying respirator with high-efficiency particulate air (HEPA) filter cartridges (e.g. 3M 7800S with 7255 filters or equivalent) or powered air-purifying respirator (PAPR) equipped with HEPA filter cartridges (e.g. 3M W3265S with W3267 filters or equivalent).
Greater than 25 fibers/cc or 50 times the OSHA PEL for cristobalite (2.5 mg/m3)	Full face, positive pressure supplied air respirator (e.g. 3M 7800S with W9435 hose and W3196 low pressure regulator kit or W3061 high pressure regulator kit connected to clean air supply or equivalent).

If airborne fiber or cristobalite concentrations are not known, as minimum protection, u NIOSH/MSHA approved half face, air-purifying respirator with HEPA filter cartridges.

Insulation surfaces should be lightly sprayed with water before removal to suppress airborne dust. As water evaporates during removal, additional water should be sprayed o surfaces as needed. Only enough water should be sprayed to suppress dust so that water does not run onto the floor of the work area. To aid the wetting process, a surfactant can be used.

After RCF removal is completed, dust-suppressing cleaning methods, such as wet sweeping vacuuming, should be used to clean the work area. If dry vacuuming is used, the vacuum must be equipped with a HEPA filter. Air blowing or dry sweeping should not be used. Dust-suppressing components can be used to clean up light dust.

EMPTY CONTAINERS:
Product packaging may contain product residue. Do not reuse.

D.O.T. PROPER SHIPPING NAME (49 CFR 172.101):	NA
D.O.T. HAZARD CLASS (49 CFR 172.101):	NA
UN/NA CODE (49 CFR 172.101):	NA
BILL OF LADING DESCRIPTION (49 CFR 172.202):	PRODUCT NAME
D.O.T. LABELS REQUIRED (49 CFR 172.101):	NA
D.O.T. PLACARDS REQUIRED (49 CFR 172.504):	NA

COMPONENT	CAS NO.	%	EXPOSURE LIMITS - REF.
Aluminosilicate (vitreous)	NA	99.50-100	1 fiber/cc 8-hr. TWA (Carborundum)

COMPONENT	CAS NO.	%	EXPOSURE LIMITS - REF.
Remaining components not determined hazardous and/or hazardous components present at less than 1.0% (0.1% for carcinogens).	NA	Trace	NA

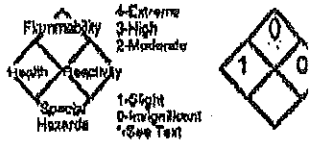
*No OSHA or ACGIH exposure limits have been established for these materials. Pending the results of long-term health effects studies, airborne exposures should be controlled at or below the Carborundum Recommended Exposure Guidelines listed above.

REVISION DATE: 30-mar-1992 REPLACES SHEET DATED: 25-oct-1991

COMPLETED BY: CARBORUNDUM HSEQ DEPARTMENT

CARBORUNDUM

MATERIAL SAFETY DATA SHEE

24-HOUR EMERGENCY ASSISTANCE	GENERAL ASSISTANCE	NFPA FIRE HAZARD SYMB
BP America (In Ohio): 800-362-8059 (Outside Ohio): 800-321-8642 CHEMTREC Assist: 800-424-9300	716-278-2183	
MSDS Number » 251/M0022		

MANUFACTURER/SUPPLIER: The Carborundum Company - Fibers Division
ADDRESS: P.O. Box 808, Niagara Falls, New York 14302

PRODUCT IDENTIFICATION

TRADE NAME:

FIBERFRAX ® DURABLANKET ® S

CAS NUMBER: MIXTURE
SYNONYM(S): CERAMIC FIBER; REFRACTORY FIBER; MMVF; REFRACTORY CERAMIC FIBER; RCF
CHEMICAL FAMILY: VITREOUS ALUMINOSILICATE FIBERS
MOLECULAR FORMULA: Al2O3.SiO2 (Amorphous)
MOLECULAR WEIGHT: NA
PRODUCT CODE: NA **HIERARCHY:** NA

PRODUCT HAZARD SUMMARY

HEALTH

WARNING!
POSSIBLE CANCER HAZARD BY INHALATION
MAY BE HARMFUL IF INHALED
(Hazard depends on duration and level of exposure)
MAY BE IRRITATING TO THE SKIN, EYES AND RESPIRATORY TRACT

FLAMMABILITY NON-COMBUSTIBLE

REACTIVITY STABLE

[illegible]

INGESTION:
Ingestion is unlikely. If ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, abdominal pain and diarrhea.

The scientists reporting these results and independent scientists reviewing these results agree that further study is necessary to determine what other factors might be responsible for this reported increased risk. Further studies are now being conducted to investigate what effects other occupational exposures and life-style had on these workers. The records will also be examined to learn if these workers had exposure to other known carcinogens in the past.

Several research studies using animals have shown that breathing of airborne mineral wool fiber does not cause any lung cancer or other lung diseases.

Mineral wool: IARC - Class 2B, NTP - not classified, ACGIH - not classified.

EMERGENCY AND FIRST AID PROCEDURES:
EYES: Flush thoroughly with water. If irritation continues, see physician.
SKIN: Wash skin after exposure.
INGESTION: Call PHYSICIAN

SECTION VI
REACTIVITY DATA

STABILITY: Stable
POLYMERIZATION: Will not occur. HAZARDOUS

SECTION VII
SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Normal cleanup procedures. Avoid creating dust.
WASTE DISPOSAL METHOD: To landfill in accordance with local, state and federal regulations.

SECTION VIII
SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH approved respirator.
VENTILATION: Local exhaust or mechanical ventilation to keep below TLV.
PROTECTIVE EQUIPMENT: Protective gloves and goggles are recommended. Wear loose-fitting clothing closed at the neck and wrists and minimize skin exposure. Wash work clothes separately. Rinse washer thoroughly after use.

SECTION IX
SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a dry place. When cutting or breaking, avoid creating excessive dust.
OTHER PRECAUTIONS: During the initial firing of a vessel insulated with this product, if the insulations temperature exceeds approximately 450° F the combustion products of a paper fire will be emitted. If the initial firing or curing is done in an oxygen deficient atmosphere, carbon monoxide and aldehydes are likely to be produced. Therefore the adjacent area must be well ventilated.

For further technical information contact: Technical Manager, Dept. 470, USG INTERIORS, INC., 101 South Wacker Drive, Chicago, IL 60606, PHONE 312/606-3762.

1519c

SKIN:
SLIGHTLY TO MODERATELY IRRITATING. May cause irritation, inflammation and rash.

EYE:
SLIGHTLY TO MODERATELY IRRITATING. Abrasive action may cause damage to the outer su
of the eye.

INHALATION:
May cause respiratory tract irritation. Pre-existing medical conditions may be aggr
by exposure; specifically, bronchial hyper-reactivity and chronic bronchial or lung
disease.

SPECIAL TOXIC EFFECTS:
The existing toxicology and epidemiology data bases for RCF's are still preliminary.
Carborundum is continuing to support the necessary investigations and will make all
available to all interested parties. Information will be updated as studies are com
and reviewed. The following is a review of the results to date:

EPIDEMIOLOGY

At this time there are no known published reports demonstrating negative health outc
of workers exposed to refractory ceramic fiber (RCF). Epidemiologic investigations
production workers are ongoing.

The preliminary evidence, obtained from employees in RCF manufacturing facilities, i
follows:

1) There is no evidence of any fibrotic lung disease (interstitial fibrosis) whatsoe
X-ray.

2) There is no evidence of any lung disease among those employees exposed to RCF tha
never smoked.

3) A statistical "trend" was observed in the exposed population between the duration
exposure to RCF and a decrease in some measures of pulmonary function. These observ
are clinically insignificant. In other words, if these observations were made on an
individual employee, the results would be interpreted as being within the normal ran

4) Pleural plaques (thickening along the chest wall) have been observed in a small n
of employees who had a long duration of employment. There are several occupational
non-occupational causes for pleural plaque. It should be noted that plaques are not
"pre-cancer" nor are they associated with any measurable effect on lung function.

TOXICOLOGY

A number of studies on the health effects of inhalation exposure of rats and hamster
now reaching completion. In a lifetime nose-only inhalation study, rats exposed to
Maximum Tolerated Dose of 30 mg/m3 (200 fibers/cc) developed progressive lung damage
(interstitial fibrosis) and cancers of the lung and of the pleura (lining of the che
wall and lung). In contrast, hamsters similarly exposed developed interstitial fibr
and pleural cancer, but no lung cancer. Cancer of the pleura is called mesothelioma

A multiple dose study (3, 9, 16 mg/m3; 25, 75, 150 fibers/cc, respectively) is curre
ongoing in rats. After 24 months of exposure, only reversible cellular changes have
seen in the low dose group. At 9 mg/m3 (75 fibers/cc), areas of lung fibrosis are b
discernible and at 16 mg/m3 (150 fibers/cc) both lung and pleural fibrosis are prese

At this time, no lung or pleural cancer has been seen in the multiple dose study. T
information will be updated once the study is completed.

The International Agency for Research on Cancer (IARC) reviewed the carcinogenicity
on man-made vitreous fibers (including ceramic fiber, glasswool, rockwool, and slagw
in 1987. IARC classified ceramic fiber, fibrous glasswool and mineral wool (rockwoo
slagwool) as possible human carcinogens (Group 2B).

[redacted]

INGESTION:
Ingestion is unlikely. If ingested, the preferred method of elimination is through
natural gastrointestinal elimination. Drink extra water. Get medical attention if
gastrointestinal symptoms develop, for example, irritation, nausea, vomiting, abdomi
pain and diarrhea.

SKIN CONTACT:
Remove contaminated clothing. Wash area of contact thoroughly with soap and water.
not rub or scratch exposed skin. Using a skin cream or lotion after washing may be
helpful. Get medical attention if irritation persists.

EYE CONTACT:
Flush immediately with large amounts of water for at least 15 minutes. Eyelids shou
held away from the eyeball to ensure thorough rinsing. Do not rub eyes. Get medica
attention if irritation persists.

INHALATION:
Remove exposed person from source of exposure to fresh air. Some people may be sens
to a fiber induced irritation of the respiratory tract. If symptoms such as shortne
breath, cough, wheezing or chest pain develop, seek medical attention. If person
experiences continued breathing difficulties, administer oxygen until medical assist
can be rendered.

[redacted]

NA

[redacted]

The following personal protective guidelines should be followed. However, when the
material has been exposed to temperatures greater than 1800 F, more extensive
precautions are required as outlined in the "Special Precautions/Supplemental
Information" section.

EYE PROTECTION:
Wear safety glasses or chemical goggles to prevent eye contact. Contact lenses shou
be worn unless chemical goggles are also used and care is taken not to touch the eye
contaminated body parts or materials. Have eye washing facilities readily available
eye contact can occur.

SKIN PROTECTION:
Wear gloves, hats and full body covering to prevent skin irritation as necessary (see
Special Precautions/Supplemental Information Section).

RESPIRATORY PROTECTION:

Properly designed and operated engineering controls are the most effective methods f minimizing airborne dust and fiber. If exposures exceed our Recommended Exposure Guideline of 1 fiber/cc of air (8-hour TWA) and engineering controls are not feasibl respiratory protection (as described below) must be used. Respiratory protection mu also be used if irritation is experienced, when airborne concentrations are unknown, the material has been exposed to temperatures greater than 1800 F (see Special Precautions/Supplemental Information Section). When handling RCF products in monito areas, Carborundum recommends that NIOSH/MSHA approved respirators be worn as outlin the following table:

Concentration (8-hour TWA)	Minimum Acceptable Respirator Type
0 - 1 fiber/cc	Optional disposable dust respirator (e.g. 3M 9970 or equivalent).
1 - 5 fibers/cc	Half-face, air-purifying respirator equipped with high-efficiency particulate air (HEPA) filter cartridg (e.g. 3M 6000 series with 2040 filter or equivalent).
5 - 25 fibers/cc	Full face, air-purifying respirator with high-efficiency particulate air (HEPA) filter cartridges (e.g. 3M 7800S with 7255 filters or equivalent) or powered air-purifying respirator (PAPR) equipped with HEPA filter cartridges (e.g. 3M W3265S with W3267 filters or equivalent).
Greater than 25 fibers/cc	Full face, positive pressure supplied air respirator (e.g. 3M 7800S with W9435 hose and W3196 low pressure regulator kit or W3061 high pressure regulator kit connected to clean air supply or equivalent).

If airborne fiber levels are not known, as minimum protection, use half-mask air-puri respirator equipped with high-efficiency particulate air (HEPA) filter cartridges (e. 6000 series or equivalent). If respiratory protection is used, employees must be giv instruction and training as described in 29 CFR 1910.134.

[redacted]

BOILING POINT: NA
SPECIFIC GRAVITY: 2.730 G/CM3
MELTING POINT: 1790.000 C (3260 F)
% VOLATILE: NA
VAPOR PRESSURE: NA
EVAPORATION RATE (WATER=1): NA
VAPOR DENSITY (AIR=1): NA
VISCOSITY: NA
% SOLUBILITY IN WATER: NA
OCTANOL/WATER PARTITION COEFFICIENT: ND
POUR POINT: NA
pH: NA
APPEARANCE/ODOR: NA

ND = No Data

SARA TITLE III INFORMATION:

Listed below are the hazard categories for the Superfund Amendments and Reauthorization Act (SARA) Section 311/312 (40 CFR 370):

Immediate Hazard: _ Delayed Hazard: X Fire Hazard: _ Pressure Hazard: _ Reactivity Hazard: _

ND = No Data

ATTACHMENT 10

Julien Farland
<Julien.Farland@UTSouthwestern.edu>

10/24/2006 05:23 PM

To David Robertson/R6/USEPA/US@EPA

cc John White <John.White@UTSouthwestern.edu>, Jose Lopez <Jose.Lopez@UTSouthwestern.edu>, Terry Capone <Terry.Capone@UTSouthwestern.edu>

bcc

Subject Response to questions

History: This message has been replied to.

David,

I'm writing to respond to the questions you left on my voice mail. I have listed the question and then the UT Southwestern response for each of the items.

1) Were units 5 & 6 ever constructed?

Units 5&6 were constructed but were never operated. Copies of the closeout papers from the TCEQ are on file in the EH&S office and will be faxed to you tomorrow.

2) Which Thermal Plant was visited?

We toured the South Thermal Energy Plant the day that you were at UT Southwestern.

3) How many SAAs does UT Southwestern have for mixed waste?

UT Southwestern has a significant number of laboratories which use scintillation vials, and every lab that uses scintillation vials potentially has an SAA for accumulation. Additionally, a handful of UT Southwestern departments have chosen to satellite accumulate their used liquid scintillation cocktail in segregated areas under their control near the point of generation to minimize any potential radiation exposure. This procedure meets with the approval of our Radiation Safety Officer for reduction of exposures to As Low As Reasonably Achievable (ALARA) levels, which is required by NRC and State radiation regulations.

4) Supply a hazardous waste determination for liquid scintillation cocktail.

An MSDS of liquid scintillation cocktail containing xylene with attached description will be faxed to you tomorrow.

5) Copies of all log sheets for all drums observed in SAAs.

Copies of all log sheets on drums you saw in SAAs the day you visited will be faxed to you tomorrow.

6) Description of where and how waste in each of those liquid scintillation SAA drums were generated, accumulated, and transported to drums.

There are two systems of liquid scintillation cocktail accumulation and transportation.

a) Some labs accumulate small volumes of liquid scintillation

cocktail (less than 5 gallons) and move it to one of two drums in a less than 90 day collection area (NB1.302 or G1).

b) Some other labs accumulate liquid scintillation cocktail vials in a large volume container (55 gallon drum) in a satellite accumulation area under their control (i.e. NA6, J3). EH&S removes the drums from the department SAAs to NB1.302 or G1, where they are prepared for disposal and transport by a waste broker (see the answer to number 8).

7) For room NB1.302, which contained two 55 Gal. drums, where were the vials from?

(See answer to #6)

8) What is Reggie Giddens' title?

Safety Technician

9) Where is Permafix located?

Perma-Fix of Florida Environmental Services is located in Gainesville, FL.

Julien Farland, SM, CHMM
Assistant Director
Biological and Chemical Safety Program
Environmental Health and Safety Department
University of Texas Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, TX 75390-9053
Phone: 214-648-2466
Fax: 214-648-3997
Julien.Farland@utsouthwestern.edu

ATTACHMENT 11

A11

Fax

To: David Robertson
U.S. Environmental Protection Agency Region 6
Surveillance Section (6EN-AS)
Fax: 214-665-7446

From: Terry Capone, Mail Code 9053
Environmental Health and Safety
University of Texas Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, TX 75390-9053
Phone (214) 648-9736
Fax (214) 648-3997
Email: Terry.Capone@UTSouthwestern.edu

Date: 11/01/2006

Subject: Log Sheets for Scintillation Cocktail

Pages Including Fax Cover: 5

Previously, Reggie supplied me with the Satellite Accumulation Log Sheets to fax to you as per your request. These log sheets are from the decay storage for mixed waste areas on NB1 and G1.

RS-50

SCINTILLATION VIALS

G/L

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
9/6/06	H^3	> 1mCi	Takashima		Christine 83830
9/14/06	^3H	250 μCi	WHITE	Mena	83501

RS-50

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
7-13-06	^3H	~5 mCi	Niederkorn	SM	83157
9/14/06	^3H	~250 μCi	WHITE	MMA	83501

NB1

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SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
8-1-06	^{32}P	< 1 mCi	Wakeland	87329	F.Carr
8/1/06	32p	3 mCi	Gorry		Kallhoff
8/3/06	51 Cr	< 1 mCi	Farrar	87316	H. Ramos
8/4/06	32P	1 mCi	McKearin	8.4946	M. Kuhn
8/16/06	35S	100 μCi/VIAL	RICHARDSON	81451	J. SHELTON
8/22/06	32P	< 1 mCi	Mangelsdorf	55986	S. Cary
8/29/06	51Cr	< 1mCi	Bennett	84082	[illegible]
8/31/06	Rb86	< 1mCi	Jiang	[illegible]	[illegible]
9-1-06	32P	< 1 mCi	Wakeland	87529	F. Carr
9-5-06	3H	< 1mci	Vitetta	81212	K. Mapes
9/14/06	32P	< 1mci	D. Smith		MARIYA
9/18/06	32P, 35S	< 1 mci	Parada	81935	Shawna
9/19/06	32P	< 1 mCi	Ward	8-5575	Juanita
9/27/06	Cr51	< 1mCi	Bennett	84082	[illegible]

631
11 Oct 06

NB1

RS-50

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
9/15/06	^{32}P, ^{3}H, ^{35}S	< 1mCi	Olson	81149	Dustin
9/21/06	32P. 3H	< 1mCi	Bibb	85757	Kandace
9-22-06	3H, 32P	< 1 mCi	Smith	8-1651	Linda
10/2/06	32P	< 1 mCi	Smith	[illegible]	MARIYA

630
11 Oct 06

NB1

RS-50

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
6/27/06	3H	<1uCi	Racke	80271	Li hong
7-14-06	3H	<15uCi	R. Anderson	82558	Charles Hull
7-25-06	3H . 14C	<100uCi	R. Bruick		Lei
7/20/06	3H	<1uCi	Racke	80271	Li hong
8/22/06.	3H –	<1uCi	M. Bathy	3399	[illegible]
8/28/06	3H	<3uCi	R Anderson	82558	Charles Hull
9-7-06		P32 / Tritium	Carlson		Sheila Hall
9-22-06	3H	50uCi	R Anderson	82558	Charles Hull
9/26/06	35S	1.13x10^8 cpm	Roch	845262	Cheng-Yang
9/28/06	3H	<1uCi	Racke	80271	Racke
10/13/06	3H	40uCi	R. Anderson	82558	[illegible]

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24Oct06

Fax

To: David Robertson
U.S. Environmental Protection Agency Region 6
Surveillance Section (6EN-AS)
Fax: 214-665-7446

From: Terry Capone, Mail Code 9053
Environmental Health and Safety
University of Texas Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, TX 75390-9053
Phone (214) 648-9736
Fax (214) 648-3997
Email: Terry.Capone@UTSouthwestern.edu

Date: 10/25/2006

Subject: Hazardous Waste Determination for Scintillation Cocktail
Log Sheets for Scintillation Cocktail
Closure of Units 5 and 6

Pages Including Fax Cover: 41 Total
(3 groups of 10
1 group of 11)

University of Texas Southwestern Medical Center
Hazardous Waste Determination for Liquid Scintillation Cocktail: Budget Solve

1.0 Product Description: Budget Solve is a complete counting scintillation cocktail for a wide range of aqueous and biological samples.

2.0 Contact: Research Products International Corp.
Information: 1-800-323-9814
Emergency: 1-800-424-9300
www.rpicorp.com

3.0 Characterization of Budget-Solve

INGREDIENT	PERCENT OF INGREDIENT IN BUDGET-SOLVE	CAS NUMBER	RCRA HAZARDOUS WASTE DESCRIPTORS
Xylenes - Mixture of Three Xylene Isomers and Ethylbenzene (Dimethylbenzene)	60-70%	1330-20-7	U239 for Xylene U239 for Dimethyl Benzene Ignitable
Non-Ionic Surfactants (Alkylphenol ethoxylate, Nonylphenyl-polyethylene glycol)	30-40%	9016-45-9	Irritant
Methanol	5-10%	67-56-1	U154, Ignitable
Scintillation Fluors	<0.05%	N/A	

4.0 Hazard Information

4.1 Hazard Information for 1330-20-7:
- Health Hazard 2
- Flammability Hazard 3
- Skin and eye irritant. Harmful by inhalation. Risk of serious eye damage. Limited evidence of carcinogenic effect. Teratogen.
- No ecological data available.

4.2 Hazard Information for 9016-45-9
- Health Hazard 2
- Skin, eye, and respiratory irritant. Possible sensitizer.

4.3 Hazard Information for 67-56-1
- Health Hazard 2
- Flammability Hazard 3
- Skin and eye irritant. Danger of serious irreversible toxic effects if inhaled, absorbed through skin, or swallowed. Teratogen. Mutagen.
- Aquatic Vertebrate Toxicity: EC50 96 Hours Rainbow Trout - 19,000 mg/L; EC50 48 Hours *Cyprinus carpio* 36,000 mg/L
- Aquatic Invertebrate Toxicity: EC50 48 Hours *Daphnia magna* 24,500 mg/L

5.0 Resources

All information was taken from Material Safety Data Sheets.

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SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
12/3/04	Wipe Test	N/A	N. van Oers	6	L. DeFord
12/10/04	32P	N/A	K. McIver	9	D. Ribards
12/10/04	32P Wipe	N/A	K. McIver	18	A. Almengor
12/14/04	Wipe Test 32P	N/A	N. van Oers	32	L. DeFord
1/3/05	32P	N/A	N. van Oers	15	L. DeFord
1/4/05	32P	N/A	K. McIver	8	T. Leday
1/6/05	32P	N/A	K. McIver	2	D. Ribards
1/7/05	32P	N/A	K. McIver	2	D. Ribards
1/7/05	Wipe test	N/A	M. GALE	48	P. Fish
1/10/05	32P	N/A	K. McIver	2	D. Ribards
1/10/05	Wipe test	N/A	K. McIver	22	T. Leday
1/12/05	Wipe test	N/A	K. McIver	3	T. Leday
1/25/05	Wipe Test	N/A	V. Sparacio	13	R. Russ
1/25/05	Wipe Test	N/A	N. van Oers	32	L. DEFORD
1/27/05	32P	N/A	K. McIver	2	D. Ribards
2/08/05	32P	N/A	K. McIver	3	D. Ribards
2/10/05	32P	N/A	K. McIver	4	D. Ribards
2/14/05	Wipe Test	N/A	K. McIver	18	D. Ribards
2/17/05	32P	N/A	E. Hansa	14	J. Mock
2/18/05	Wipe test	N/A	M Gale	49	P. Fish
2/22/05	32P	N/A	M. Gale	4	B. Fredericks
2/23/05	Wipe test	N/A	N. Van Oers	32	L. DeFord
2/ 10	" "	N/A	GALE	49	PFish

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NA6

4

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
7/14/05	^{32}P	N/A	McIver	3	A. Almengar
7/21/05	wipe test	NA	Gale	51	P. Fish
7/25/05	Wipe Test	N/A	N. van oers	32	L. DeFord
7/27/05	^{32}P	N/A	McIver	3	D. Ribordo
7/29/05	^{32}P	N/A	Gale	2	C. Johnson
8/4/05	32P	N/A	McIver	2	T. Kinkel
8/8/05	32P	N/A	McIver	2	T. Kinkel
8/10/05	32P	NA	Gale	2	C. Johnson
8/12/05	32P	N/A	Gale	3	T. Sands
8/12	Wipe test	NA	Gale	51	P Fish
8/16/05	Wipe test		McIver	21	T. Kinkel
8/16/05	32P	N/A	McIver	2	D. Ribordo
8/18/05	32P	0.01 uCi	Van Oers	2	L. DeFord
8/23/05	Wipe test	NA	Gale	2	P Fish
8/24/05	32P	N/A	McIver	2	D. Ribordo
8/25/05	"	"	Gale	6	T. S
8/30/05	32P	N/A	McIver	2	D. Ribordo
8/31/05	Wipe Test	NA	Van Oers	32	L. DeFord
8/31/05	32P	N/A	Gale	9	A. Erickson
9/2/05	32P	N/A	Gale	5	C. Johnson
9-14-05	wipe	N/A	McIver	19	Cheryl
9-14-05	32P	N/A	Gale		T. S
9-20-05	Wipe Test	NA	Gale	51	PF

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NAG

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
7/14/05	32P	N/A	McIver	3	A. Almanger
7/26/05	wipe test	NA	Gale	51	P. Fish
7/25/05	Wipe Test	N/A	N. van Oers	32	L. DeFord
7/27/05	32P	N/A	McIver	3	D. Ribardo
7/29/05	32P	N/A	Gale	52	C. Johnson
8/4/05	32P	N/A	McIver	2	T. Kinkel
8/8/05	32P	N/A	McIver	2	T. Kinkel
8/10/05	32P	NA	Gale	2	C. Johnson
8/12/05	32P	N/A	Gale	3	T. Sands
8/12	Wipe test	NA	Gale	51	P Fish
8-16-05	Wipe test		McIver	21	T. Kinkel
8/16/05	32P	N/A	McIver	2	D. Ribardo
8/18/05	32P	0.01 uCi	Van Oers	2	L. DeFord
8/19/05	Wipetest	NA	Gale	2	PFish
8/24/05	32P	N/A	McIver	2	D. Ribardo
8/25/05	"	"	Gale	6	T. S
8/26/05	32P	N/A	McIver	2	D. Ribardo
8/31/05	Wipe Test	NA	Van Oers	32	L. DeFord
8/31/05	32P	N/A	Gale	9	A. Erickson
9/2/05	32P	N/A	Gale	5	C. Johnson
9-14-05	wipe	N/A	McIver	19	Cheryl
9-14-05	32P	N/A	Gale		T. S
9-20-05	Wipe test	NA	Gale	51	PF

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9/28/05	Wipe Test	N/A	Van Oers	32	L. DeFord
10/4/05	32P 3H wipe test	N/A	Sperandio	10	Marcie Clarke
10/12/05	wipe test	N/A	McIver	18	A. Almenger
10/18/05	11	N/A	Sperandio	4	M. Clarke
10/19/05	32P	N/A	McIver	4	D. Ribardo
10/19/05	32P	N/A	McIver	2	T. Leday
10/24	32P wipe test	NA	Gale	51	P. Fish
10/24	wipe test	NA	Gale	17	Ming Loo
10/28	wipe test	NA	Russell Sperandio	13	P. Russell
10/28	Wipe Test	N/A	Van Oers	32	L. DeFord
10/28	32P	N/A	Gale	7	T. Santo
11/3/05	32P	N/A	McIver	2	T. Leday
11/9/05	32P	N/A	McIver	4	Robert Cyr
11/10	32P	11	Gale	7	T. Santo
11/11	32P	N/A	McIver	18	Robert Cyr
11/12	wipe test	N/A	Gale	22	Ming Loo
11/16	Re-wipe test	N/A	McIver	2	Robert Cyr
11/17/05	32P	N/A	McIver	9	D. Ribardo
11/18/05	wipe test	NA	Gale	51	P. Fish
11/18/05	32P	N/A	Gale	2	T.S.
11/18/05	32P	N/A	Gale	2	T.S.

12/12/05	32p	N/A	McIver	NA6	T. Kinkel
"	32p	"	Gale		C. Johnson
12/13/05	wipe test	N/A	McIver	18	T. Leday
3/14/06	32p	N/A	McIver	9	D. Ribardo
3/15/06	32p	NA	Sperandio	3	M. Walters
3/15/06	32p	N/A	McIver	2	D. Ribardo
3/16/06	32p	N/A	McIver	2	D. Ribardo
3-18-06	wipe	N/A	McIver	17	C. Vahling
3/24/06	Wipe	N/A	Van Oers	32	L. DeFord
4/12	32p	N/A	McIver	18	Robt Gale
4/20	Wipe test	N/A	GALE	51	N. Crochet
4/25	Wipe Test	N/A	NeO	32	L. DeFord
4/26	Wipe Test	N/A	Pfeiffer	23	C. Ethredge
5/9	32p	N/A	McIver	3	D. Ribardo
5/10	Wipe Test	N/A	McIver	18	T. Leday
5/17	32p	N/A	Sperandio	3	M. Walters
5/18/06	32p	N/A	McIver	8	D. Ribardo
5/19/06	32p	N/A	McIver	3	D. Ribardo
5/19/06	32P	NA	MCIVER	2	T. Kinkel
5/26/06	Wipe Test	N/A	Pfeiffer	22	C. Ethredge
5/30/06	32p	N/A	McIver	4	D. Ribardo
5/30/06	WipeTest	N/A	Van Oers	32	L. DeFord
6/8/06	32p	N/A	Gale	3	C. Johnson
6/9/06	Wipe	N/A	Russell	13	R. Russell
6/12/06	wipetest	N/A	McIver	18	D. Ribardo
6/16/06	Wipetest	N/A	GALE	56	N. Crochet

P1A.6

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
6/23/06	3H	< 1uCi	Pfeiffer	86769	JP
7/10/06	Wipe	N/A	Van Oers	32	LW
7/18/06	WIPE		McIver	18	TLK
7/27/06	3H	< 1uCi	Pfeiffer	86853	JP
7/31/06	WIPE	N/A	GALE	85947	NC
8/1/06	3H	< 1uCi	Pfeiffer	86858	JP
8/2/06	WIPE	N/A	Pfeiffer	86853	JP
8/8/06	Wipe	N/A	Van Oers	32	LW
8/9/06	3H	< 1uCi	Pfeiffer	86853	JP
8-9-06	wipe	N/A	McIver	81252	CV
8/15/06	3H	< 1uCi	pfeiffer	8-86853	JP
8/17/06	3H	~ 7uCi	Pfeiffer	8-86853	JP
8/23	3H	~ 10 uCi	Pfeiffer	8-86853	JP
9/1/06	WIPE	N/A	GALE	85947	NC
9/5/06	3H	~ 10 uCi	Pfeiffer	8-86853	JP
9/11/06	Wipe	N/A	Pfeiffer	22	CE
9/17/06	3H	~ 10 uCi	Pfeiffer	8-86853	JP
9/18/06	3H	~ 5 uCi	" "	"	JP
9/21/06	wipe		RRussell	13	RR
9/21/06	Wipe	N/A	Van Oers	81227	LW
9/29/06	3H	~ 7uCi	Pfeiffer	8-86853	JP
10/9/06	Wipe	N/A	Pfeiffer	22	CE
10/24/06	WIPE	N/A	GALE	2	NC

J3-L

J3-L 9.

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
6/9/06	S35		Huang		Hongm Do[illegible]
6/9/06	3H	10 uCi	R. Anderson	8-25%	Charles Hu[illegible]
6/22/06	3H	50 uCi	RHB		[illegible]
6-30-06		P32/Tritium	Paulson		Sheila Gill
8/31/06	S35	3.0x10^7 cpm	Roth	[illegible]	Cheng-Yang Wu
9/14/06	14C, 3H	~ 25 uCi	Brunzelle		Lei

RS-50

J3R

J5-R 10

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
1/16/06	32P	<1	J White	8913	[illegible]

RS-50

****
*** RX REPORT ***
****

RECEPTION OK

TX/RX NO	7925
CONNECTION TEL	2146483997
SUB-ADDRESS	
CONNECTION ID	
ST. TIME	10/25 12:05
USAGE T	01'54
PGS.	10
RESULT	OK

J8 11

RS-50

SCINTILLATION VIALS

J8

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
2/16/06	32 P	< 1 µCi	McPhaul	83977	Alicia M.
4/11/06	P32 S35 C14	< 1µ	Chiu Catherine	82205	Catherine
7-31-06	P32 S35 C14	< 1µci	Chiu	82205	Catherine

RS-50

SCINTILLATION VIALS

ADD LOOSE VIALS (NO BAGS OR BOXES), FILL OUT LOG

DATE	ISOTOPE	ACTIVITY	FROM WHOSE LAB? INVESTIGATOR	#	YOUR NAME
11/25/2006	3H	5-10 mCi	TCS		Seag. Kyzar
2/2/2006	"	"	"		"
3/13/"	"	"	"		"
4/3/"	"	"	"		"
4/13/"	" & 14C	"	"		"
4/21/06	p32	< 1 mCi	DPS		LINDA

UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER, DALLAS, TEXAS
AUGUST 2006 SUMMARY OF HAZARDOUS CHEMICAL WASTE STORAGE UNITS

RCRA Permit HW-50165-000 Unit Number	N.O.R. Unit Number	STEERS Unit Number	Unit Description	STEERS Status as of 8/18/06	True Status as Shown by This Package	Comment on True Status, With Document Page Number Referenced in Parentheses
1	001	001	Acid Storage Bldg Front Room	ACTIVE	**CLOSED**	Professional Engineer Certified 001 and 002 as Closed May 16, 2006 (p. 104)
2	002	002	Acid Storage Bldg Back Room	ACTIVE	**CLOSED**	The TCEQ Accepted Closure per Letter Dated July 13, 2006 (p. 163)
3	003	003	S Building Laboratory	ACTIVE	**CLOSED**[1]	Professional Engineer Certified 003 as Closed June 9, 2006 (p. 172) The TCEQ Accepted Closure per Letter Dated July 13, 2006 (p. 187)
4 5 6 7 8 9	004 A 004 B 004 C 004 D 004 E 004 F	004 004 004 004 004 004	ECSC[2] Flmbl Storage #1 ECSC Flmbl Storage #2 ECSC Chem Storage #1 ECSC Chem Storage #2 ECSC Chem Storage #3 ECSC Laboratory	ACTIVE	**CLOSED** (was never constructed)	Professional Engineer Certified 004A - 004F as Closed May 19, 2006 (p. 193) Certified Closure Transmitted July 28, 2006 (p. 189); Acceptance of Closure by the TCEQ is Pending
Not Shown on March 2000 Revision	005	005	Environmental Control Processing Center Bldg (the Incinerator Building)	CLOSED	**CLOSED**	Professional Engineer Certified 005 as Closed August 6, 1996 (p. 213) The TNRCC Accepted Closure per Letters Dated: December 13, 1996 (p. 216) December 11, 1998 (p. 218) November 14, 2000 (p. 225)
Not Shown on March 2000 Revision	006	006	Incinerator, fixed hearth\n\Unit (the Incinerator, Liquid Injection System, and Feed Tanks)	CLOSED	**CLOSED** (was never operated)	Professional Engineer Certified 006 as Closed May 14, 1996 (p. 240) The TNRCC Accepted Closure per Letter Dated August 2, 1996 (p. 242)
N/A; RCRA Permit Exempt <90-Day Storage	007	007	NB Building North Campus Waste Storage	ACTIVE	**ACTIVE**	Registered on STEERS for <90-Day Storage (p. 043) Must remain ACTIVE.
N/A; RCRA Permit Exempt <90-Day Storage	008	008	RV Unit South Campus Chemical Waste Storage Room	ACTIVE	**ACTIVE**	Registered on STEERS for <90-Day Storage (p. 044) Must remain ACTIVE.

[1]The S Building Laboratory is now officially closed as a Waste Management Unit, and was not being operated as a Waste Management Unit prior to closure. The S Building Laboratory continues to operate as a University Laboratory.

[2]ECSC = Environmental Control Storage Center

Group of Documents Showing Acceptance of Closure Three Times by the TNRCC for the Environmental Control Processing Center Building (the Incinerator Building); Listed on N.O.R. and STEERS as Waste Management Unit 005

for

the University of Texas Southwestern Medical Center at Dallas

15

12/19 xc: Don Carlson

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

December 13, 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Peter H. Fitzgerald, Ph.D.
The University of Texas - Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, TX 75235 - 9013

Re: The University of Texas-Southwestern Medical Center - Dallas, TX
TNRCC Solid Waste Registration No. 65014
Environmental Control Processing Center Building
Risk Reduction Rules, Standard No. 1
Approval of Closure/Remediation Final Report
Closure Project No. 4424

Dear Mr. Fitzgerald:

The Texas Natural Resource Conservation Commission (TNRCC) received your Final Report dated August 16, 1996 indicating that closure/remediation activities have been completed in accordance with the TNRCC Risk Reduction Rules (RRR) Standard No. 1, pursuant to Title 30 Texas Administrative Code (TAC) Chapter 35 Subchapters A and S.

In order to attain RRR Standard No. 1, all industrial solid waste and municipal hazardous waste and waste residues must be removed or decontaminated from affected media (i.e., soil, surface water, groundwater, air) to naturally occurring background levels. Waste constituents which are not naturally occurring (such as most organic chemicals) must be cleaned to the analytical method detection limits. EPA defines these limits as Practical Quantitation Limits - the minimum concentration of a substance that can be measured within specified limits of precision and accuracy under routine operating lab conditions.

The TNRCC staff has completed review of the Final Report. Based on the information submitted in the Final Report and other pertinent information available to our staff, it appears that cleanup at Environmental Control Processing Center Building has attained Risk Reduction Standard No. 1. The University of Texas-Southwester Medical Center, Dallas, Texas is released from deed recordation and post-closure care requirements.

DEC 1 8 1996

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000

Please be aware that it is the continuing obligation of persons associated with a site to assure that municipal hazardous waste and industrial solid waste are managed in a manner which does not cause the discharge or imminent threat of discharge of waste into or adjacent to waters in the state, a nuisance, or the endangerment of the public health and welfare as required by Title 30 Texas Administrative Code (TAC) §335.4. If the actual closure/remediation fails to comply with these requirements, the burden remains upon The University of Texas-Southwestern Medical Center, Dallas, Texas to take any necessary and authorized action to correct such conditions. A TNRCC field inspector may review your Final Report and may conduct a closure inspection of the site.

If you have any questions regarding this letter, please contact the TNRCC Closure Team, in Austin, at (512) 239-2343, Mail Code MC-127.

Sincerely,

Richard Clarke, Program Manager
I&HW, Corrective Action Section, Closure Team

RC/er

cc: TNRCC Region 4, Arlington
Tennie Larson, Corrective action Section

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

December 11, 1998

Dr. Donald E. Carlson
The University of Texas-Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, Texas 75235-9013

Re: The University of Texas-Southwestern Medical Center
TNRCC Solid Waste Registration No. 65014
Permit No. HW-51065, EPA No. TXD71378822
Environmental Control Processing Center Building
Approval of Closure Final Report - Risk Reduction Standard No. 1

Dear Dr Carlson:

Staff of the Texas Natural Resource Conservation Commission (TNRCC) have reviewed the above referenced document, dated August 16, 1996 indicating that closure activities have been completed in accordance with the TNRCC Risk Reduction Standard (RRS) No. 1 pursuant to Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapters A and S.

In order to attain RRS No. 1, all industrial solid waste and municipal hazardous waste and waste residues must be removed or decontaminated from affected media (i.e., soil, surface water, groundwater, air) to naturally occurring background levels. Waste constituents which are not naturally occurring (such as most organic chemicals) must be cleaned to the analytical method detection limits. EPA defines these limits as Practical Quantitation Limits - the minimum concentration of a substance that can be measured within specified limits of precision and accuracy under routine operating lab conditions.

The TNRCC has completed a review of the Final Report. Based on the information contained in the Final Report and other information available to staff, it appears that cleanup at the Environmental Control Processing Center Building has attained RRS No. 1. The The University of Texas-Southwestern Medical Center is released from deed recordation and post-closure care requirements.

Please be aware that it is the continuing obligation of persons associated with a site to assure that municipal hazardous waste and industrial solid waste are managed in a manner which does not cause the discharge or imminent threat of discharge of waste into or adjacent to waters in the state, a nuisance, or the endangerment of the public health and welfare as required by 30 TAC §335.4. If

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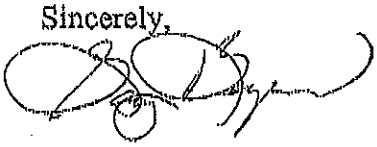
the actual closure fails to comply with these requirements, the burden remains upon the University of Texas-Southwestern Medical Center to take any necessary and authorized action to correct such conditions. A TNRCC field inspector may review your Final Report and conduct a closure inspection of the site.

Questions concerning this letter should be directed to me at (512) 239-2361. When responding by mail, please submit an original and one copy of all correspondence and reports to the Corrective Action Section at Mail Code MC-127 with an additional copy submitted to the TNRCC Region 4 Office in Arlington. The TNRCC Solid Waste Registration Number and the Environmental Control Processing Center Building should be referenced in all submittals.

Sincerely,



Gary Beyer, Project Manager
Team IV, Corrective Action Section
Remediation Division

GB:gb

cc: Mr. Sam Barrett, Waste Program Manager, TNRCC Region 4 Office, Arlington

18.

From: Derek Rodricks <DRODRICK@tnrcc.state.tx.us>
To: <mpatil@mednet.swmed.edu>
Date: Monday, March 20, 2000 10:34 AM
Subject: Title V Air Permit for University of Texas SouthwesternMedical Center at Dallas

Dear Mr. Paul,
You informed me that the Incinerator with EPN: INCN and FIN: INCFC had been demolished. This unit was showing up in our database for the TNRCC account number DB1245 I which is an additional account number in addition to the primary account number DB2459D for the University. The Incinerator was part of the New Source Permit number 14266 issued on 6/21/83. If the incinerator is the only unit in that permit and account you can void it by sending a letter to New Source Review, TNRCC informing about the demolition requesting for voiding of the NSR permit 14266. If you have additional units in the TNRCC account number DB1245 I you can combine it with DB2459D with the help of our regional office.

For Title V purposes I will send you an OP-REV with revised information. Please review it and email it back to me. I can also send the information to the emission inventory. I will be sending my other corrections in subsequent emails. Please give me a call (512)239-1308 if you have any questions.
Thanks
Derek Rodricks
Air Permits Division
TNRCC

Who got permit?

INSTRUCTIONS
Texas Natural Resource Conservation Commission
Form OP-REV
Data Revision Report

General:

Form OP-REV (Data Revision Report) is used to notify the Texas Natural Resource Conservation Commission (TNRCC) in cases where:

1. an applicant would like to add a unit included in the federal operating permit (FOP) application to the TNRCC Point Source Database (PSDB);

2. a unit that currently resides in the PSDB has been shutdown or demolished since the applicant completed the last emissions inventory (units will remain in PSBD, but the facility status will be updated);

3. a redundant unit, or duplicate of a unit, currently resides in the PSDB and should be removed;

4. an account contains a unit that was added to the PSDB in error and the unit should be removed; or

5. a unit identification number and/or a unit name/description entered on the FOP application differs from those reported in the most recent emissions inventory or the most recent new source review (NSR) permit action. This difference can reflect a change or correction of previously submitted information. It may also occur when the applicant has become aware of an inaccuracy in the PSDB.

The applicant must provide detailed data for any unit included on the FOP application that must be added to the PSDB. This information should be submitted to the TNRCC Office of Environmental Policy, Analysis, and Assessment, Emissions Inventory Section through appropriate emissions inventory questionnaires.

This form is to be used for administrative purposes only and cannot be used to make changes to the PSDB that would require Title 30 Texas Administrative Code Chapter 116 (30 TAC Chapter 116) authorization. Furthermore, this form may not be used to modify any attribute or requirement information contained on an existing or pending application. Updating of information contained on this form will not delay the processing of the operating permit application.

The TNRCC primary account number and the application area name from Form OP-1 (Site Information Summary) must appear in the header of each page for the purpose of identification. The date of the submittal must also be included and should be consistent throughout the application (MM/DD/YYYY). Any subsequent submittal must show the date of revision.

Specific:

CHANGE TYPE: Select one of the following options for the type of change being documented. Enter the code on the form.

Code	Description
ADD	Addition of a unit
SHTDN	Shutdown unit *(PSDB Facility Status to be updated)*
DEMOL	Demolished unit *(PSDB Facility Status to be updated)*
REM-RD	Remove redundant unit or duplicate of a unit currently in PSDB
REM-AE	Remove unit added to the account in error

****
*** RX REPORT ***
****

RECEPTION OK

TX/RX NO	7926
CONNECTION TEL	2146483997
SUB-ADDRESS	
CONNECTION ID	
ST. TIME	10/25 12:09
USAGE T	01'52
PGS.	10
RESULT	OK

IDN	Change or correct unit identification number
NAME	Change or correct unit name/description
BOTH	Change or correct both the unit identification number and the name/description

CURRENT PSDB ID NO.: Enter the current identification number (ID No.) (as currently contained in the PSDB) of the unit being changed, corrected, or removed (maximum 10 characters). If the unit is an addition to the PSDB, enter "NA".

NEW PSDB ID NO.: If adding, changing, or correcting a unit identification number (ID No.) within the PSDB ("Change Type" designations of "ADD", "IDN", or "BOTH"), enter the new value for the unit identification number (maximum 10 characters). If removing a unit or changing a facility status ("Change Type" designations of "REM-RD", "REM-AE", "SHTDN", or "DEMOL"), or if the revision does not affect the unit identification number ("Change Type" designation of "NAME"), enter "NA".

PSDB DEVICE TYPE: Select one of the following options for the PSDB device type. Enter the code on the form. *(Refer to the glossary of the PSDB Data Dictionary for definitions)*

Code	Description
FIN	Facility Identification Number
EPN	Emission Point Number
CIN	Control Equipment Identification Number

ACCOUNT NUMBER: Enter the TNRCC account number associated with the unit. If a single TNRCC account number covers the entire application area, then the primary account number is associated with all units in the area. If the application area has multiple account numbers, the applicant must determine which account number is associated with the unit. This number may be the primary account number for the application area or one of the secondary account numbers. All primary and secondary TNRCC account numbers must be listed on Form OP-1 (XX-XXXX-X).

Note: The TNRCC account number, or numbers, already exists for most sites (it may have been previously known as the Texas Air Control Board account number). It is assigned by the TNRCC to an entire property owned and controlled by an applicant at a given location. An example TNRCC account number is: JB-1234-R. If the applicant does not know the account number, or needs to have one assigned, contact the appropriate TNRCC regional office for assistance. Most sites have only one account number, however, some sites may have multiple account numbers. If more than one account number is associated with the application, the primary account number will be used as the main account number for this application for administrative purposes. The primary account number is generally the largest account or the earliest in chronological order, and is designated on Form OP-1.

PERMIT NUMBER: Enter the NSR (30 TAC Chapter 116) permit number (maximum 8 characters) authorizing the unit under the account number listed in the previous column. Use multiple lines if the unit is covered by more than one NSR permit *(for reference only)*.

NEW NAME/DESCRIPTION: If adding, changing, or correcting a unit name and/or description within the PSDB ("Change Type" designations of "ADD", "NAME", or "BOTH"), enter the updated name and/or description of the unit. If removing a unit or changing facility status ("Change Type" designations of "REM-RD", "REM-AE", "SHTDN", or "DEMOL"), or if the revision does not affect the unit name and/or

description ("Change Type" designation of "IDN"), enter "NA" ("Name/Description" format for units with "PSDB Device Type" designation of "FIN", maximum 48 characters; "EPN" maximum 25 characters; "CIN" maximum 48 characters).

OP-REV Instructions

TNRCC Form OP-REV
Data Revision Report
Federal Operating Permit Program

Date: 3/20/00	Account No.: DB2459D	Permit No.: O-01483

Area Name: The University of Texas Southwestern Medical Center at Dallas
~~University of Texas Southwestern Medical Center at Dallas University of Texas Southwestern Medical Center at Dallas~~

[illegible]	[illegible]	New [illegible]	[illegible]	Account Number	Permit Number	New Name/Description
DEMOL	INCN	NA	EPN	DB1245I	14266	Incinerator
DEMOL	INCFC	NA	FIN	DB1245I	14266	Incinerator

TNRCC-10015 (Rev. 10-15-98)
OP-REV Instructions - These forms are for use by sources subject to the Federal Operating Permit Program and are subject to revision. (APDG095A/769-v14)

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

November 14, 2000

Mr. Peter H. Fitzgerald
The University of Texas - Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, TX 75235

Re: Hazardous Waste Management Unit
Acceptance of Final Closure Certification
Environmental Control Processing Center Building
The University of Texas - Southwestern Medical Center - Dallas, TX
TNRCC SWR No.65014

Dear Mr. Fitzgerald:

The Texas Natural Resource Conservation Commission (TNRCC) has reviewed your closure certification report dated August 16, 1996 and the engineer's certification dated July 23, 1996. These documents indicate that the closure of the Environmental Control Processing Center Building was completed in accordance with the closure plan approved by the TNRCC on December 13, 1996. The TNRCC hereby accepts the closure certification. Hazardous waste financial assurance is no longer required under 40 Code of Federal Regulations (CFR) §265.143(h) for the closed unit.

Please be aware that it is the continuing obligation of persons associated with a site to ensure that municipal hazardous waste and industrial solid waste are managed in a manner which does not cause the discharge or imminent threat of discharge of waste into or adjacent to waters in the state, a nuisance, or the endangerment of the public health and welfare as required by Title 30 Texas Administrative Code (TAC) §335.4. If the actual closure fails to comply with these requirements, the burden remains upon The University of Texas - Southwestern Medical Center to take any necessary and authorized action to correct such conditions. A TNRCC field inspector may review your certification information and conduct a closure inspection of the site.

Questions concerning this letter should be directed to me at (512) 239-2361. When responding by mail, please submit an original and one copy of all correspondence and reports to the Corrective Action Section at Mail Code MC-127 with an additional copy submitted to the TNRCC Region 4

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DR. JOSE LOPEZ DIRECTOR of
HEALTH and SAFETY
UNIVERSITY of TEXAS
SOUTHWESTERN MEDICAL CENTER
5323 HARRY HINES Boulevard
DALLAS, TEXAS 75390

COMPLETE

A. Signature

X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) M. CANTU

C. Date of Delivery 08 SEP 2008

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

08 SEP 2008

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7007 2560 0002 7737 4234

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6 MC. 6EN-HE
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

ATTN: RHONDA SMITH

HZ/RC/TE

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name:	The University of Texas Southwestern Medical Center (UT Southwestern)
Facility Address:	Environmental Health and Safety, Mail Code 9053 5323 Harry Hines Blvd., Dallas, TX 75390-9053
Facility EPA ID #:	TXD071378822
TCEQ Solid Waste Registration ID#:	65014

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

   __X_ If yes - check here and continue with #2 below.
   _____ If no - re-evaluate existing data, or
   _____ if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated"[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater		x		Never a RCRA Chemical Release from UT Southwestern
Air (indoors)[2]		x		Indoor Air Quality Program and RCRA Program both include a requirement to keep chemical containers closed except when material is being added to or removed from containers. Laboratories and clinics are inspected at least annually (many are inspected more often) and 90-Day Waste Storage units are inspected on every M-F work day.
Surface Soil (e.g., <2 ft)		x		Never a RCRA Chemical Release from UT Southwestern
Surface Water		x		Never a RCRA Chemical Release from UT Southwestern
Sediment		x		Never a RCRA Chemical Release from UT Southwestern
Subsurf. Soil (e.g., >2 ft)		x		Never a RCRA Chemical Release from UT Southwestern
Air (outdoors)		x		UT Southwestern operates under a Title V Federal Operating Permit for emissions. Emissions from use of volatile organic compounds (VOCs) is included in the permit and annual emissions inventories are reported. There has never been a violation of VOC emissions.

__X__ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

_____ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

UT Southwestern uses chemicals in small quantities and collects waste chemicals in satellite accumulation areas (laboratories and clinics) in containers that hold less than or equal to 4 liters. Chemicals moved from satellite accumulation areas are taken to 90-day storage facilities. In 90-day storage facilities, waste solvents are bulked into 55-gallon drums and other chemicals remain in their small containers for lab packing into 55-gallon drums. Drums are removed from UT Southwestern's property by a chemical waste vendor. The satellite accumulation areas and the 90-day storage facilities are all indoors at locations that do not include floor drains leading to the sanitary sewer or to the storm water sewer.

UT Southwestern operates under a Spill Prevention Control and Countermeasure Plan which includes a strong focus on secondary containment, frequent inspections, and spill response to quickly clean-up spills. All chemical spills at UT Southwestern have been indoors and have been quickly cleaned up. The spill materials are packaged and shipped out as RCRA chemical waste. Additionally, UT Southwestern performs monthly observations of Knight's Branch Creek downstream of all UT Southwestern activity and results have shown no evidence of contamination since this observation program began in 2004 (i.e. water color, water clarity, fish, large aquatic turtles, and algae have not significantly changed and continue to appear healthy).

UT Southwestern has never released RCRA chemicals to the groundwater, soil, or surface water. All RCRA enforcement against UT Southwestern has been administrative; for example, "Failure to label a container with the words *Hazardous Waste*." A copy of the UT SOUTHWESTERN RCRA COMPLIANCE INSPECTION LOG 1987 - 2007 is attached.

Footnotes:
[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).
[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

	Potential **Human Receptors** (Under Current Conditions)						
"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater							
Air (indoors)							
Soil (surface, e.g., <2 ft)							
Surface Water							
Sediment							
Soil (subsurface e.g., >2 ft)							
Air (outdoors)							

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

____ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

____ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the exposures from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

_____ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

[4] If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5. Can the "significant" exposures (identified in #4) be shown to be within acceptable limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code.

Rationale and Reference(s):

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__X__ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the University of Texas Southwestern Medical Center at Dallas facility, EPA ID # TXD071378822, located at Mail Code 9053, 5323 Harry Hines Blvd., Dallas, TX 75390-9053 under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

_____ NO - "Current Human Exposures" are NOT "Under Control."

_____ IN - More information is needed to make a determination.

Completed by (signature) Terry Capone Date 2-14-07

(Ms.) Terry Capone
Environmental Compliance Manager

Locations where References may be found:
UT Southwestern Medical Center Dept. EH&S, Mail Code 9053, 5323 Harry Hines Blvd. 75390-9053

Contact telephone and e-mail numbers: Terry Capone, 214-648-9736, Terry.Capone@UTSouthwestern.edu

Final Note: The purpose of the Human Exposure EI is to qualitatively screen exposures based on current land and groundwater use. A "YE" determination does not constitute a screening tool that ends the corrective action process. The "YE" determination may be changed at any time as new information becomes available.

UT SOUTHWESTERN
RCRA COMPLIANCE INSPECTION LOG
1987 - 2007

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
05/07/1987	EPA	Inspector not referenced in available documents.	Warning Letter Stating Violations 1) There were violations of 40 CFR Part 268 (Land Disposal Restrictions). UT Southwestern was generating restricted F solvent wastes and shipping them off-site for treatment. The treatment facility was not provided with any information regarding these restricted wastes. Information required but not being provided included EPA waste number, applicable treatment standards, manifest number, and waste analysis data. 2) UT Southwestern's waste analysis plan was in violation of 40 CFR Parts 268 and 265. It failed to reflect the type and frequency of testing that would be performed in order to comply with the requirements for management of restricted wastes. 3) Failure to comply with the Warning Letter and any additional failures to comply with RCRA regulations could have resulted in penalties up to $25,000 per day of continued non-compliance.
04/19/1988	EPA	Stacey Bennett Mike Michaud	Warning Letter Stating Violations 1) The letter states that "several violations pertaining to the RCRA land disposal restrictions" were noted. Provisions of 40 CFR Parts 265 and 268 were violated. 2) The Waste Analysis Plan failed to include mandatory testing and certification requirements. 3) The Waste Analysis Plan failed to indicate that UT Southwestern will, by knowledge of waste, consider all wastes which contain F-solvents to exceed the land treatment standards. 4) The Waste Analysis Plan failed to require UT Southwestern to attach proper notification to manifests. 5) UT Southwestern failed to comply with 40 CFR Part 268.7 that requires facilities to: a) test wastes or use knowledge of waste to determine if the waste is restricted from land disposal, notify the treatment; and b) notify treatment facilities in writing of the appropriate treatment standard, the EPA hazardous waste number, the manifest number, and waste analysis data. 6) Failure to comply with the Warning Letter could have resulted in penalties up to $25,000 per day of continued non-compliance.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
02/23/1989 Entry 1 of 2	TWC	Samuel Barrett	Certified Mail Stating Issues of Non-Compliance 1) UT Southwestern failed to provide the full name of the inspector on inspection logs. UT Southwestern's use of only initials on logs was not compliant with regulations. 2) UT Southwestern failed to make arrangements with an emergency response contractor. 3) The operating record did not state the location of each hazardous waste within the facility. 4) The operating record did not state the quantity of each hazardous waste at each location within the facility. 5) The Waste Analysis Plan did not specify the methods which would be used to ensure compliance with land disposal restrictions. 6) Emissions of VOCs from the S Building fume hood were not ventilated to dedicated systems of two activated carbon adsorption canisters in series. 7) A one-gallon container at or near the point of generation in Y4.332 was not kept closed. 8) Failure to adequately remedy these non-compliance issues within the specified time frame could lead to administrative penalties of up to $10,000 per day per area of non-compliance.
02/23/1989 Entry 2 of 2	TWC Inspected EPA Sent Warning Letter.	Samuel Barrett	Warning Letter Stating Violations 1) UT Southwestern was in violation of land disposal restrictions found in 40 CFR Part 268 and in revisions to 40 CFR parts 260 to 265. The Waste Analysis Plan needed to be revised to include appropriate testing and certification requirements. Provisions for testing waste, or an extract, needed to be developed using the test method described in Part 268: Toxicity Characteristic Leaching Procedure. Either: a) testing and analysis needed to provide sufficient information to determine the presence of F-solvent wastes, applicable treatment standards, and qualification of waste; or b) a statement in the Waste Analysis Plan must say that UT Southwestern will, by knowledge of waste, consider all accepted wastes which contain F-solvents to exceed treatment standards, and will attach the proper notification to the manifest as specified in 40 CFR Part 268. 2) The letter states that failure to comply within 30 days could lead to administrative penalties of up to $25,000 per day per violation.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
01/25/1990	EPA	Caroline Abbott Walt Helmick	Inspection Report Stating Concerns 1) February 23, 1989 violations were found to be corrected. 2) The Auto Shop was mixing a characteristic hazardous waste (a de-greasing solution) with used oil without testing for the characteristic of ignitability. The report states that inadequate process knowledge might require testing of the mixture for ignitability. 3) There was a discrepancy between the Notice of Registration and the types of wastes generated. No P or U listed wastes were reported on the Annual Waste Summary for 1989 because all P and U wastes were identified as Characteristic Wastes for Lab Packing. UT Southwestern was not concerned with land disposal of P and U listed wastes because all Lab Pack wastes were sent out for incineration. 4) A drum of waste paint was open with a funnel on top.
12/04/1990	TWC and EPA	Samuel Barrett and Caroline Abbott	Inspection Report Stating Violations 1) A 55-gallon drum used to accumulate hazardous waste in the paint shop was not labeled "Hazardous Waste" and did not identify contents. 2) The paint shop 55-gallon drum was not kept closed.
11/21/1991	EPA	Gene Keepper Mary Stanton	Inspection Report Stating Violations 1) A manifest did not include the generator's manifest number. 2) UT Southwestern failed to maintain complete records and results of facility inspections. 3) UT Southwestern failed to notify the receiving disposal facility of the appropriate Land Disposal Restriction standards for waste containing silver.
11/17/1992	TWC	Matt Kearney	Inspection Report Stating Violations 1) A drum containing paint wastes was not kept closed during storage. 2) Two drums of paint waste in one location, with one of the drums being completely full, violated satellite accumulation storage volumes. The full drum was not moved to storage before the 3-day deadline for storage of greater-than 55 gallons.
12/11/1992	EPA	Mary Stanton	Inspection Report Stating a Violation 1) A manifest did not include applicable treatment standards on the land disposal restriction notice.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
11/10/1994	EPA	Not stated in report or other available documents.	Warning Letter Stating Violations 1) Two unlabeled 55-gallon drums were found in the auto shop. Contents were unknown to UT Southwestern personnel. 2) Three unlabeled 55-gallon drums were stored inside the Hazardous Waste Facility. Employees stated that the drums probably contained paint wastes but could not confirm. 3) A North Campus satellite accumulation area violated maximum volume of 55-gallons hazardous waste or one quart acutely hazardous waste. Four 55-gallon drums were stored in the area. The area was not registered as a 90 day storage facility. 4) The letter states that further action including civil penalties could occur.
11/09/1995	EPA	Roberto Bernier	Inspection Report Stating Area of Concern 1) A North Campus satellite accumulation area violated maximum volume of 55-gallons hazardous waste or one quart acutely hazardous waste. Three 55-gallon drums were stored in the area. A decision was made during the inspection to operate this satellite area as a 90-day storage area so that large waste volumes could be legally accumulated on the North Campus.
12/04/1996	EPA	Kelli Smith Roberto Bernier	Inspection Report Stating RCRA Concerns 1) Drums in the less-than-90-day storage facility on North Campus were not labeled as "Hazardous Waste". 2) One drum in the less-than-90-day storage facility was stored for greater than 90 days. 3) The less-than-90-day storage facility was incorrectly referred to as a Satellite Accumulation Point (SAP) in UT Southwestern records. SAPs must be near the point of waste generation and this storage location was clearly not near the point of waste generation for all wastes generated on North Campus.
12/04/1996	EPA	Kelli Smith Roberto Bernier	Enforcement Action Stating Violations 1) UT Southwestern failed to limit accumulation time in the less-than- 90-day storage facility to less than 90 days. 2) UT Southwestern failed to label all containers in the less-than-90-day storage facility with the words "Hazardous Waste". 3) UT Southwestern was ordered to provide a revised daily inspection form which indicates audit of containers to ensure that: a) containers are clearly marked with the words "Hazardous Waste"; b) containers are clearly marked with the waste accumulation start date; and c) the less-than-90-day storage limit is not violated. 4) UT Southwestern was ordered to pay a civil penalty of $4,000. 5) The legal orders were finally satisfied and terminated in November 1997. 6) A Complaint, Compliance Order, and Notice of Opportunity for Hearing was filed Sept. 17, 1997. A Consent Agreement and Consent Order was also filed Sept. 17, 1997.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
09/28/1998	EPA	Roberto Bernier	Inspection Report Stating No Areas of Concern Were Found.
09/14/1999	EPA	Roberto Bernier	Inspection Report Stating No Areas of Concern Were Found.
06/20/2000	EPA	Ken Cooper	Inspection Report Stating an Area of Concern and a Suggestion 1) There was an unlabeled container of mixed waste observed in a less-than-90-day storage area. 2) Suggestion from the inspector: UT Southwestern EH&S should improve management of lab satellite accumulation areas to ensure compliance. A laboratory audit program with every lab inspected at least once annually would be of benefit.
04/02/2001	EPA	Ken Cooper	Inspection Report Stating an Area of Concern and a Suggestion 1) There were no currently employed environmental contact names from the environmental department listed in the contingency plan. 2) Suggestion from the inspector: Waste could be minimized by eliminating the practice of shipping used oils out as waste oils.
03/21/2002	EPA	Ken Cooper	Inspection Report Stating Areas of Concern 1) Uranium compounds were being mixed with other chemical wastes in K1.232 to create an unnecessarily large volume of mixed waste. 2) Auto shop oils should not be shipped as hazardous waste. 3) An unattended cart of chemical wastes was sitting in the hallway on Y4.
12/04/2002	EPA	David Robertson	Inspection Report Stating Areas of Concern 1) Some wastes were accumulated for greater than one year. UT Southwestern could not demonstrate that the accumulation time was needed to facilitate proper recovery or disposal. 2) The operating record did not accurately reflect the location of all wastes accumulated in permitted storage areas. 3) The facility did not safely store wastes labeled "refrigerate" or "store under nitrogen". One such container was labeled "unknown, refrigerate" yet was stored on a shelf in the non-air conditioned building. 4) Used oil was mis-labeled as "Dupont Freon 11" and "Trichlorofluoromethane". The oil was in the location for 12 years. The drum was rusted and appeared to have discharged around the bung. 5) The paint shop was satellite accumulating waste in the paint shop prior to moving it to an unlabeled and undated drum outside the paint shop. This was double-satellite accumulation. The facility could avoid this by registering the outside location as a 90-day storage facility. 6) One container stored in Permitted Unit 2 was severely rusted and not labeled. It appeared that the container could not safely store the unknown contents.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
12/04/2002	EPA	David Robertson	Enforcement Action Stating Violations 1) Wastes bearing hazard warnings of "refrigerate" and "handle and store under nitrogen" and "may explode when heated" were stored on shelves in a non-air conditioned building with no nitrogen blanket available. UT Southwestern was ordered to document improved handling of waste to minimize the possibility of fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste. 2) A 30-gallon drum was severely rusted and leaking (UT Southwestern denies, the drum was not leaking and was only moderately rusty.). The drum was labeled "Dupont Freon 11" and "Trichloromethane" but contained used oil. The drum had been in the location for more than 12 years. UT Southwestern was ordered to provide a copy of a Standard Operating Procedure that would direct personnel to properly label used oil containers with the words "Used Oil". 3) A 55-gallon drum that contained paint waste was not labeled as "hazardous waste". 4) UT Southwestern was ordered to provide documentation that operating records would reflect the locations of all wastes accumulated in permitted storage unit 3. (The allegations section does not describe a violation that resulted in this order.) 5) UT Southwestern was ordered to pay a Civil Penalty of $2,820 and to perform a Supplemental Environmental Project (SEP) at a cost of $15,000. 6) The Supplemental Environmental Project required by the order was completed by December 2005. 7) A Complaint, Compliance Order, and Notice of Opportunity for Hearing was filed September 25, 2003. A Consent Agreement and Final Order was filed May 4, 2004.
09/20/2004	EPA	Ken Cooper	Inspection Report Stating an Area of Concern 1) The inspector looked at all areas of violations from the December 4, 2002 inspection and found no violations. 2) The inspector found one drum of mixed waste (scintillation cocktail vials) that was not closed properly. Note that the drum was located in the Radioactive Materials storage area of the Hazardous Waste Facility (HWF) rather than in the RCRA Permitted portion of the HWF.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
08/17/2005	EPA	David Robertson	Certified Mail Cover Letter by the EPA Hazardous Waste Enforcement Branch with Attached Inspection Report Stating Areas of Concern 1) UT Southwestern did not maintain two feet of aisle space between waste drums in waste storage areas. 2) UT Southwestern's operating record was not available because the computer system that maintains the operating record was down. The requested information on four drums was later supplied on August 22, 2005. Also, the operating record did not list the location of waste stored on site. Bulked hazardous waste was shown as being located in "RCRA Unit 1 & 2" when wastes were actually stored in Unit 2. 3) P and U listed wastes were stored in RCRA Unit 2. Unit 2 is only permitted to store waste solvents. Also, Universal Waste Paint was stored in Permitted Unit 1. Unit 1 is permitted to store lab pack and outdated chemicals from biomedical research. 4) Open containers were observed by the inspector. 5) Employees working in Permitted Storage Units 1 and 2 and in the Less-Than-90-Day Storage Facility did not have immediate access to communications or alarm systems. 6) The inspector noted vague labeling in satellite accumulation containers. For example, a 5-gallon container in L3.210 was labeled "chemical water layer". According to the lab manager, the contents included halogenated and non-halogenated solvents. 7) Letter from Hazardous Waste Enforcement Branch requests UT Southwestern to address Areas of Concern in Inspection Report.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
09/26/2006	EPA	David Robertson	09/26/2006 At the end of the inspection, D. Robertson discussed concerns with refractory brick and mixed waste storage: 1) Years ago some refractory brick contained leach-able chromium. D. Robertson requested UT Southwestern to perform a hazardous waste characterization on the brick used in UT Southwestern boilers. 2) Accumulation of mixed waste in locked rooms across from labs generating those wastes might not be considered to be satellite accumulation locations. 3) Assessing volume of mixed waste as amount of liquid dregs remaining in plastic scintillation vials may not be accurate; the vials themselves may need to be counted (i.e. a full 55-gallon drum might need to be considered as 55 gallons of mixed waste even though 90% of what is actually in the drum is small plastic vials each containing better than 90% air). 4) A mixed waste drum in an accumulation area did not include the words "Hazardous Waste" on the drum label. 09/28/2006 The requested hazardous waste characterization on refractory brick was performed using a product MSDS. The hazardous waste characterization was faxed to D. Robertson and he accepted the characterization showing that UT Southwestern's refractory brick does not contain hazardous materials. 10/26/2006: Written report not yet rec'd from EPA. 11/27/2006: Written report not yet rec'd from EPA. 12/27/2006: Written report not yet rec'd from EPA. 01/26/2007: Written report not yet rec'd from EPA.
10/04/2006: RCRA PERMIT CLOSURE FINALIZED NOT AN INSPECTION ENTRY TO THE LOG	N/A	N/A	UT Southwestern's RCRA Permit Closure was accepted by the TCEQ in a letter dated October 4, 2006, from Katherine Nelson of the TCEQ Industrial and Hazardous Waste Section/Waste Permits Division. In the letter, Ms. Nelson states, "There are no outstanding corrective action or post closure care requirements related to the permit."

E Welmer

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name:	**The University of Texas Southwestern Medical Center**
Facility Address:	**Environmental Health and Safety, Mail Code 9053** **5323 Harry Hines Blvd., Dallas, TX 75390-9053**
Facility EPA ID #:	**TXD071378822**
TCEQ Solid Waste Registration ID#:	**65014**

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

__X__ If yes - check here and continue with #2 below.

_____ If no - re-evaluate existing data, or

_____ if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Is **groundwater** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

_____ If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

__X__ If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

UT Southwestern uses chemicals in small quantities and collects waste chemicals in satellite accumulation areas (laboratories and clinics) in containers that hold less than or equal to 4 liters. Chemicals moved from satellite accumulation areas are taken to 90-day storage facilities. In 90-day storage facilities, waste solvents are bulked into 55-gallon drums and other chemicals remain in their small containers for lab packing into 55-gallon drums. Drums are removed from UT Southwestern's property by a chemical waste vendor. The satellite accumulation areas and the 90-day storage facilities are all indoors at locations that do not include floor drains leading to the sanitary sewer or to the storm water sewer.

UT Southwestern operates under a Spill Prevention Control and Countermeasure Plan which includes a strong focus on secondary containment, frequent inspections, and spill response to quickly clean-up spills. All chemical spills at UT Southwestern have been indoors and have been quickly cleaned up. The spill materials are packaged and shipped out as RCRA chemical waste. Additionally, UT Southwestern performs monthly observations of Knight's Branch Creek downstream of all UT Southwestern activity and results have shown no evidence of contamination since this observation program began in 2004 (i.e. water color, water clarity, fish, large aquatic turtles, and algae have not significantly changed and continue to appear healthy).

UT Southwestern has never released RCRA chemicals to the groundwater, soil, or surface water. All RCRA enforcement against UT Southwestern has been administrative; for example, "Failure to label a container with the words *Hazardous Waste*." A copy of the UT SOUTHWESTERN RCRA COMPLIANCE INSPECTION LOG 1987 - 2007 is attached.

Footnotes:

[1]"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"[2] as defined by the monitoring locations designated at the time of this determination)?

____ If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"[2]).

____ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"[2]) - skip to #8 and enter "NO" status code, after providing an explanation.

____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

[2] "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

_____ If yes - continue after identifying potentially affected surface water bodies.

_____ If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

5. Is the **discharge** of "contaminated" groundwater into surface water likely to be **"insignificant"** (i.e., the maximum concentration3 of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

____ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration[3] of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration[3] of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations[3] greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

[3]As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented[4])?

____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,[5] appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

____ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

____ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

[4] Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

[5] The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

_____ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

_____ If no - enter "NO" status code in #8.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

____ YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at The University of Texas Southwestern Medical Center at Dallas facility, EPA ID # TXD071378822, located at Mail Code 9053, 5323 Harry Hines Blvd., Dallas, TX 75390-9053. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater". This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

_____ NO - Unacceptable migration of contaminated groundwater is observed or expected.

_____ IN - More information is needed to make a determination.

There is no possible correct answer above for UT Southwestern because UT Southwestern has never released RCRA chemicals to groundwater. UT cannot conduct monitoring to confirm that contaminated groundwater remains within the existing area of contamination because there is no existing area of contamination created by or controlled by UT Southwestern.

Completed by (signature) Terry Capone Date 2-14-07
(Ms.) Terry Capone
Environmental Compliance Manager

Locations where References may be found:
UT Southwestern Medical Center Dept. EH&S, Mail Code 9053, 5323 Harry Hines Blvd. 75390-9053

Contact telephone and e-mail numbers: Terry Capone, 214-648-9736, Terry.Capone@UTSouthwestern.edu

Final Note: The purpose of the Migration of Contaminated Groundwater EI is to verify that the groundwater plume is stable. A "YE" determination does not constitute a screening tool to end the corrective action process. The "YE" determination may be changed at any time as new information becomes available.

There is no UT Southwestern groundwater plume; therefore, there is no plume to verify as stable.

UT SOUTHWESTERN
RCRA COMPLIANCE INSPECTION LOG
1987 - 2007

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
05/07/1987	EPA	Inspector not referenced in available documents.	Warning Letter Stating Violations 1) There were violations of 40 CFR Part 268 (Land Disposal Restrictions). UT Southwestern was generating restricted F solvent wastes and shipping them off-site for treatment. The treatment facility was not provided with any information regarding these restricted wastes. Information required but not being provided included EPA waste number, applicable treatment standards, manifest number, and waste analysis data. 2) UT Southwestern's waste analysis plan was in violation of 40 CFR Parts 268 and 265. It failed to reflect the type and frequency of testing that would be performed in order to comply with the requirements for management of restricted wastes. 3) Failure to comply with the Warning Letter and any additional failures to comply with RCRA regulations could have resulted in penalties up to $25,000 per day of continued non-compliance.
04/19/1988	EPA	Stacey Bennett Mike Michaud	Warning Letter Stating Violations 1) The letter states that "several violations pertaining to the RCRA land disposal restrictions" were noted. Provisions of 40 CFR Parts 265 and 268 were violated. 2) The Waste Analysis Plan failed to include mandatory testing and certification requirements. 3) The Waste Analysis Plan failed to indicate that UT Southwestern will, by knowledge of waste, consider all wastes which contain F-solvents to exceed the land treatment standards. 4) The Waste Analysis Plan failed to require UT Southwestern to attach proper notification to manifests. 5) UT Southwestern failed to comply with 40 CFR Part 268.7 that requires facilities to: a) test wastes or use knowledge of waste to determine if the waste is restricted from land disposal, notify the treatment; and b) notify treatment facilities in writing of the appropriate treatment standard, the EPA hazardous waste number, the manifest number, and waste analysis data. 6) Failure to comply with the Warning Letter could have resulted in penalties up to $25,000 per day of continued non-compliance.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
02/23/1989 Entry 1 of 2	TWC	Samuel Barrett	Certified Mail Stating Issues of Non-Compliance 1) UT Southwestern failed to provide the full name of the inspector on inspection logs. UT Southwestern's use of only initials on logs was not compliant with regulations. 2) UT Southwestern failed to make arrangements with an emergency response contractor. 3) The operating record did not state the location of each hazardous waste within the facility. 4) The operating record did not state the quantity of each hazardous waste at each location within the facility. 5) The Waste Analysis Plan did not specify the methods which would be used to ensure compliance with land disposal restrictions.
			6) Emissions of VOCs from the S Building fume hood were not ventilated to dedicated systems of two activated carbon adsorption canisters in series. 7) A one-gallon container at or near the point of generation in Y4.332 was not kept closed. 8) Failure to adequately remedy these non-compliance issues within the specified time frame could lead to administrative penalties of up to $10,000 per day per area of non-compliance.
02/23/1989 Entry 2 of 2	TWC Inspected EPA Sent Warning Letter	Samuel Barrett	Warning Letter Stating Violations 1) UT Southwestern was in violation of land disposal restrictions found in 40 CFR Part 268 and in revisions to 40 CFR parts 260 to 265. The Waste Analysis Plan needed to be revised to include appropriate testing and certification requirements. Provisions for testing waste, or an extract, needed to be developed using the test method described in Part 268: Toxicity Characteristic Leaching Procedure. Either: a) testing and analysis needed to provide sufficient information to determine the presence of F-solvent wastes, applicable treatment standards, and qualification of waste; or b) a statement in the Waste Analysis Plan must say that UT Southwestern will, by knowledge of waste, consider all accepted wastes which contain F-solvents to exceed treatment standards, and will attach the proper notification to the manifest as specified in 40 CFR Part 268. 2) The letter states that failure to comply within 30 days could lead to administrative penalties of up to $25,000 per day per violation.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
01/25/1990	EPA	Caroline Abbott Walt Helmick	Inspection Report Stating Concerns 1) February 23, 1989 violations were found to be corrected. 2) The Auto Shop was mixing a characteristic hazardous waste (a de-greasing solution) with used oil without testing for the characteristic of ignitability. The report states that inadequate process knowledge might require testing of the mixture for ignitability. 3) There was a discrepancy between the Notice of Registration and the types of wastes generated. No P or U listed wastes were reported on the Annual Waste Summary for 1989 because all P and U wastes were identified as Characteristic Wastes for Lab Packing. UT Southwestern was not concerned with land disposal of P and U listed wastes because all Lab Pack wastes were sent out for incineration. 4) A drum of waste paint was open with a funnel on top.
12/04/1990	TWC and EPA	Samuel Barrett and Caroline Abbott	Inspection Report Stating Violations 1) A 55-gallon drum used to accumulate hazardous waste in the paint shop was not labeled "Hazardous Waste" and did not identify contents. 2) The paint shop 55-gallon drum was not kept closed.
11/21/1991	EPA	Gene Keepper Mary Stanton	Inspection Report Stating Violations 1) A manifest did not include the generator's manifest number. 2) UT Southwestern failed to maintain complete records and results of facility inspections. 3) UT Southwestern failed to notify the receiving disposal facility of the appropriate Land Disposal Restriction standards for waste containing silver.
11/17/1992	TWC	Matt Kearney	Inspection Report Stating Violations 1) A drum containing paint wastes was not kept closed during storage. 2) Two drums of paint waste in one location, with one of the drums being completely full, violated satellite accumulation storage volumes. The full drum was not moved to storage before the 3-day deadline for storage of greater-than 55 gallons.
12/11/1992	EPA	Mary Stanton	Inspection Report Stating a Violation 1) A manifest did not include applicable treatment standards on the land disposal restriction notice.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
11/10/1994	EPA	Not stated in report or other available documents.	Warning Letter Stating Violations 1) Two unlabeled 55-gallon drums were found in the auto shop. Contents were unknown to UT Southwestern personnel. 2) Three unlabeled 55-gallon drums were stored inside the Hazardous Waste Facility. Employees stated that the drums probably contained paint wastes but could not confirm. 3) A North Campus satellite accumulation area violated maximum volume of 55-gallons hazardous waste or one quart acutely hazardous waste. Four 55-gallon drums were stored in the area. The area was not registered as a 90 day storage facility. 4) The letter states that further action including civil penalties could occur.
11/09/1995	EPA	Roberto Bernier	Inspection Report Stating Area of Concern 1) A North Campus satellite accumulation area violated maximum volume of 55-gallons hazardous waste or one quart acutely hazardous waste. Three 55-gallon drums were stored in the area. A decision was made during the inspection to operate this satellite area as a 90-day storage area so that large waste volumes could be legally accumulated on the North Campus.
12/04/1996	EPA	Kelli Smith Roberto Bernier	Inspection Report Stating RCRA Concerns 1) Drums in the less-than-90-day storage facility on North Campus were not labeled as "Hazardous Waste". 2) One drum in the less-than-90-day storage facility was stored for greater than 90 days. 3) The less-than-90-day storage facility was incorrectly referred to as a Satellite Accumulation Point (SAP) in UT Southwestern records. SAPs must be near the point of waste generation and this storage location was clearly not near the point of waste generation for all wastes generated on North Campus.
12/04/1996	EPA	Kelli Smith Roberto Bernier	Enforcement Action Stating Violations 1) UT Southwestern failed to limit accumulation time in the less-than- 90-day storage facility to less than 90 days. 2) UT Southwestern failed to label all containers in the less-than-90-day storage facility with the words "Hazardous Waste". 3) UT Southwestern was ordered to provide a revised daily inspection form which indicates audit of containers to ensure that: a) containers are clearly marked with the words "Hazardous Waste"; b) containers are clearly marked with the waste accumulation start date; and c) the less-than-90-day storage limit is not violated. 4) UT Southwestern was ordered to pay a civil penalty of $4,000. 5) The legal orders were finally satisfied and terminated in November 1997. 6) A Complaint, Compliance Order, and Notice of Opportunity for Hearing was filed Sept. 17, 1997. A Consent Agreement and Consent Order was also filed Sept. 17, 1997.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
09/28/1998	EPA	Roberto Bernier	Inspection Report Stating No Areas of Concern Were Found.
09/14/1999	EPA	Roberto Bernier	Inspection Report Stating No Areas of Concern Were Found.
06/20/2000	EPA	Ken Cooper	Inspection Report Stating an Area of Concern and a Suggestion 1) There was an unlabeled container of mixed waste observed in a less-than-90-day storage area. 2) Suggestion from the inspector: UT Southwestern EH&S should improve management of lab satellite accumulation areas to ensure compliance. A laboratory audit program with every lab inspected at least once annually would be of benefit.
04/02/2001	EPA	Ken Cooper	Inspection Report Stating an Area of Concern and a Suggestion 1) There were no currently employed environmental contact names from the environmental department listed in the contingency plan. 2) Suggestion from the inspector: Waste could be minimized by eliminating the practice of shipping used oils out as waste oils.
03/21/2002	EPA	Ken Cooper	Inspection Report Stating Areas of Concern 1) Uranium compounds were being mixed with other chemical wastes in K1.232 to create an unnecessarily large volume of mixed waste. 2) Auto shop oils should not be shipped as hazardous waste. 3) An unattended cart of chemical wastes was sitting in the hallway on Y4.
12/04/2002	EPA	David Robertson	Inspection Report Stating Areas of Concern 1) Some wastes were accumulated for greater than one year. UT Southwestern could not demonstrate that the accumulation time was needed to facilitate proper recovery or disposal. 2) The operating record did not accurately reflect the location of all wastes accumulated in permitted storage areas. 3) The facility did not safely store wastes labeled "refrigerate" or "store under nitrogen". One such container was labeled "unknown, refrigerate" yet was stored on a shelf in the non-air conditioned building. 4) Used oil was mis-labeled as "Dupont Freon 11" and "Trichlorofluoromethane". The oil was in the location for 12 years. The drum was rusted and appeared to have discharged around the bung. 5) The paint shop was satellite accumulating waste in the paint shop prior to moving it to an unlabeled and undated drum outside the paint shop. This was double-satellite accumulation. The facility could avoid this by registering the outside location as a 90-day storage facility. 6) One container stored in Permitted Unit 2 was severely rusted and not labeled. It appeared that the container could not safely store the unknown contents.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
12/04/2002	EPA	David Robertson	Enforcement Action Stating Violations 1) Wastes bearing hazard warnings of "refrigerate" and "handle and store under nitrogen" and "may explode when heated" were stored on shelves in a non-air conditioned building with no nitrogen blanket available. UT Southwestern was ordered to document improved handling of waste to minimize the possibility of fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste. 2) A 30-gallon drum was severely rusted and leaking (UT Southwestern denies, the drum was not leaking and was only moderately rusty.). The drum was labeled "Dupont Freon 11" and "Trichloromethane" but contained used oil. The drum had been in the location for more than 12 years. UT Southwestern was ordered to provide a copy of a Standard Operating Procedure that would direct personnel to properly label used oil containers with the words "Used Oil". 3) A 55-gallon drum that contained paint waste was not labeled as "hazardous waste". 4) UT Southwestern was ordered to provide documentation that operating records would reflect the locations of all wastes accumulated in permitted storage unit 3. (The allegations section does not describe a violation that resulted in this order.) 5) UT Southwestern was ordered to pay a Civil Penalty of $2,820 and to perform a Supplemental Environmental Project (SEP) at a cost of $15,000. 6) The Supplemental Environmental Project required by the order was completed by December 2005. 7) A Complaint, Compliance Order, and Notice of Opportunity for Hearing was filed September 25, 2003. A Consent Agreement and Final Order was filed May 4, 2004.
09/20/2004	EPA	Ken Cooper	Inspection Report Stating an Area of Concern 1) The inspector looked at all areas of violations from the December 4, 2002 inspection and found no violations. 2) The inspector found one drum of mixed waste (scintillation cocktail vials) that was not closed properly. Note that the drum was located in the Radioactive Materials storage area of the Hazardous Waste Facility (HWF) rather than in the RCRA Permitted portion of the HWF.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
08/17/2005	EPA	David Robertson	Certified Mail Cover Letter by the EPA Hazardous Waste Enforcement Branch with Attached Inspection Report Stating Areas of Concern 1) UT Southwestern did not maintain two feet of aisle space between waste drums in waste storage areas. 2) UT Southwestern's operating record was not available because the computer system that maintains the operating record was down. The requested information on four drums was later supplied on August 22, 2005. Also, the operating record did not list the location of waste stored on site. Bulked hazardous waste was shown as being located in "RCRA Unit 1 & 2" when wastes were actually stored in Unit 2. 3) P and U listed wastes were stored in RCRA Unit 2. Unit 2 is only permitted to store waste solvents. Also, Universal Waste Paint was stored in Permitted Unit 1. Unit 1 is permitted to store lab pack and outdated chemicals from biomedical research.
			4) Open containers were observed by the inspector. 5) Employees working in Permitted Storage Units 1 and 2 and in the Less-Than-90-Day Storage Facility did not have immediate access to communications or alarm systems. 6) The inspector noted vague labeling in satellite accumulation containers. For example, a 5-gallon container in L3.210 was labeled "chemical water layer". According to the lab manager, the contents included halogenated and non-halogenated solvents. 7) Letter from Hazardous Waste Enforcement Branch requests UT Southwestern to address Areas of Concern in Inspection Report.

INSPECTION DATE	AGENCY	INSPECTOR(S)	DETAILED SUMMARY
09/26/2006	EPA	David Robertson	09/26/2006 At the end of the inspection, D. Robertson discussed concerns with refractory brick and mixed waste storage: 1) Years ago some refractory brick contained leach-able chromium. D. Robertson requested UT Southwestern to perform a hazardous waste characterization on the brick used in UT Southwestern boilers. 2) Accumulation of mixed waste in locked rooms across from labs generating those wastes might not be considered to be satellite accumulation locations. 3) Assessing volume of mixed waste as amount of liquid dregs remaining in plastic scintillation vials may not be accurate; the vials themselves may need to be counted (i.e. a full 55-gallon drum might need to be considered as 55 gallons of mixed waste even though 90% of what is actually in the drum is small plastic vials each containing better than 90% air). 4) A mixed waste drum in an accumulation area did not include the words "Hazardous Waste" on the drum label. 09/28/2006 The requested hazardous waste characterization on refractory brick was performed using a product MSDS. The hazardous waste characterization was faxed to D. Robertson and he accepted the characterization showing that UT Southwestern's refractory brick does not contain hazardous materials. 10/26/2006: Written report not yet rec'd from EPA. 11/27/2006: Written report not yet rec'd from EPA. 12/27/2006: Written report not yet rec'd from EPA. 01/26/2007: Written report not yet rec'd from EPA.
10/04/2006: RCRA PERMIT CLOSURE FINALIZED NOT AN INSPECTION ENTRY TO THE LOG	N/A	N/A	UT Southwestern's RCRA Permit Closure was accepted by the TCEQ in a letter dated October 4, 2006, from Katherine Nelson of the TCEQ Industrial and Hazardous Waste Section/Waste Permits Division. In the letter, Ms. Nelson states, "There are no outstanding corrective action or post closure care requirements related to the permit."